

# GREATER BROCKTON BUILDING TRADES OCCUPATIONS

**UMass Donahue Institute**

**November 2023**

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Donahue Institute

Economic and  
Public Policy Research

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The Donahue Institute's **Economic & Public Policy Research (EPPR) group** is a leading provider of applied research, helping clients make more informed decisions about strategic economic and public policy issues.

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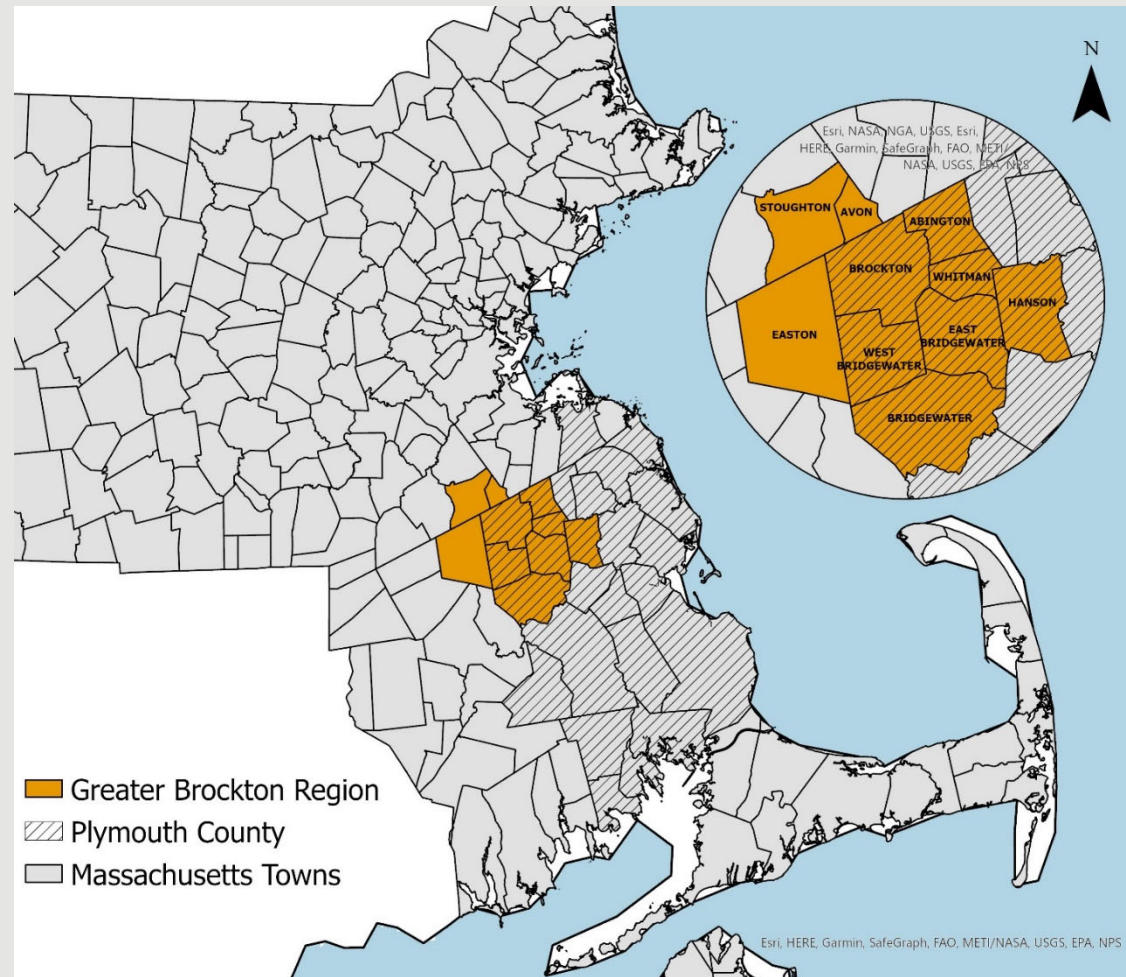
# PROJECT OVERVIEW

The MassHire Greater Brockton Workforce Board (MHGBWB) engaged UMDI to provide a high-level assessment of the construction and construction-related trades including:

- Industry and occupation analysis
- Demographic makeup of the workforce
- Employment trends
- Role of unions in construction and related trades
- Current barriers to individuals seeking work in the trades and union occupations

To do this work, UMDI:

- Conducted data analysis on available workforce data
- Conducted five key informant interviews and a focus group of people with knowledge of training and hiring in construction-related occupations/trades
- Summarized findings in report for MHGBWB



# CURRENT CONDITIONS



Construction is the **fourth largest industry** in Greater Brockton, based on the number of jobs.



Construction and construction-related jobs are subject to **high turnover**, likely due to the **temporary nature of most construction projects** as well as the **weather-dependent** and **physically demanding** nature of many of the relevant jobs.

Most sub-parts of the construction industry have experienced **employment growth** over the last ten years, especially the sub-industry of **Building Equipment Contractors**.



There is **high demand** for workers with skills in construction-related trades. The **skills for each trade** are **highly specialized** and employers seek **experienced and licensed workers with training** as well as the transferrable or '**soft**' **skills** related to everyday job expectations.

# BARRIERS TO CAREERS IN THE TRADES IN GREATER BROCKTON

From the interviews and focus group discussion, the following barriers were discovered:



**Advertising, Marketing, and Awareness:** There is a lack of awareness and knowledge of construction-related trades occupations among the general population and among high school students. Jobs are not always listed.



**Transportation:** Many construction or trades workers, or people who might go into these careers, have trouble accessing transportation, including access to cars and public transportation.



**Educational Barriers:** There is not enough training capacity to meet the needs of the region.



**Language Barriers:** Non-English speakers may have more issues knowing about trades careers, knowing where to find jobs, getting a job or getting promoted.

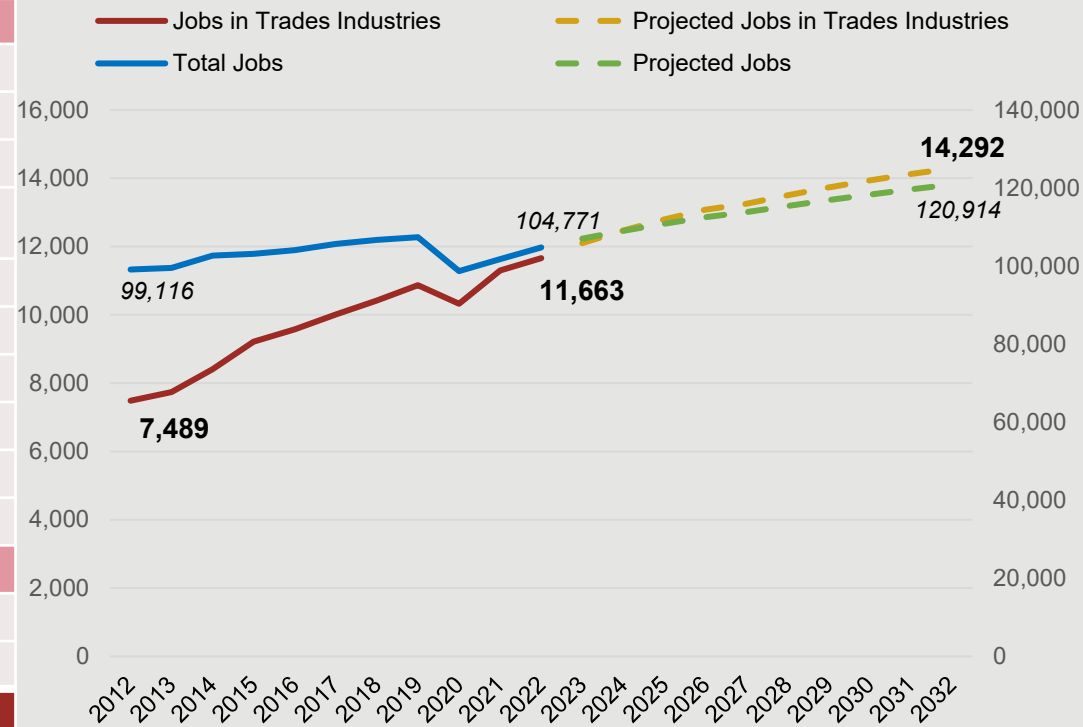


**Job Expectations and Soft Skills:** People who do get into construction trades work can find it to be more difficult or different than they thought. Employers are seeking trained and experienced, responsive workers.

## JOBS UP 56% IN THE SELECTED TRADES INDUSTRIES OVER THE PAST DECADE IN THE REGION

NAICS	Construction-related Trades Industries	Jobs in Greater Brockton in 2022
<b>23</b>	<b>Construction</b>	<b>10,408</b>
2382	Building Equipment Contractors	4,141
2389	Other Specialty Trade Contractors	1,909
2383	Building Finishing Contractors	1,517
2381	Foundation, Structure, and Building Exterior Contractors	836
2361	Residential Building Construction	690
2362	Nonresidential Building Construction	664
2373	Highway, Street, and Bridge Construction	327
2371	Utility System Construction	215
2379	Other Heavy and Civil Engineering Construction	62
2372	Land Subdivision	47
<b>48-49</b>	<b>Transportation and Warehousing</b>	
4841	General Freight Trucking	779
4842	Specialized Freight Trucking	476
	<b>Total Jobs</b>	<b>11,663</b>

Job Growth by Industry in Greater Brockton, 2012-2032

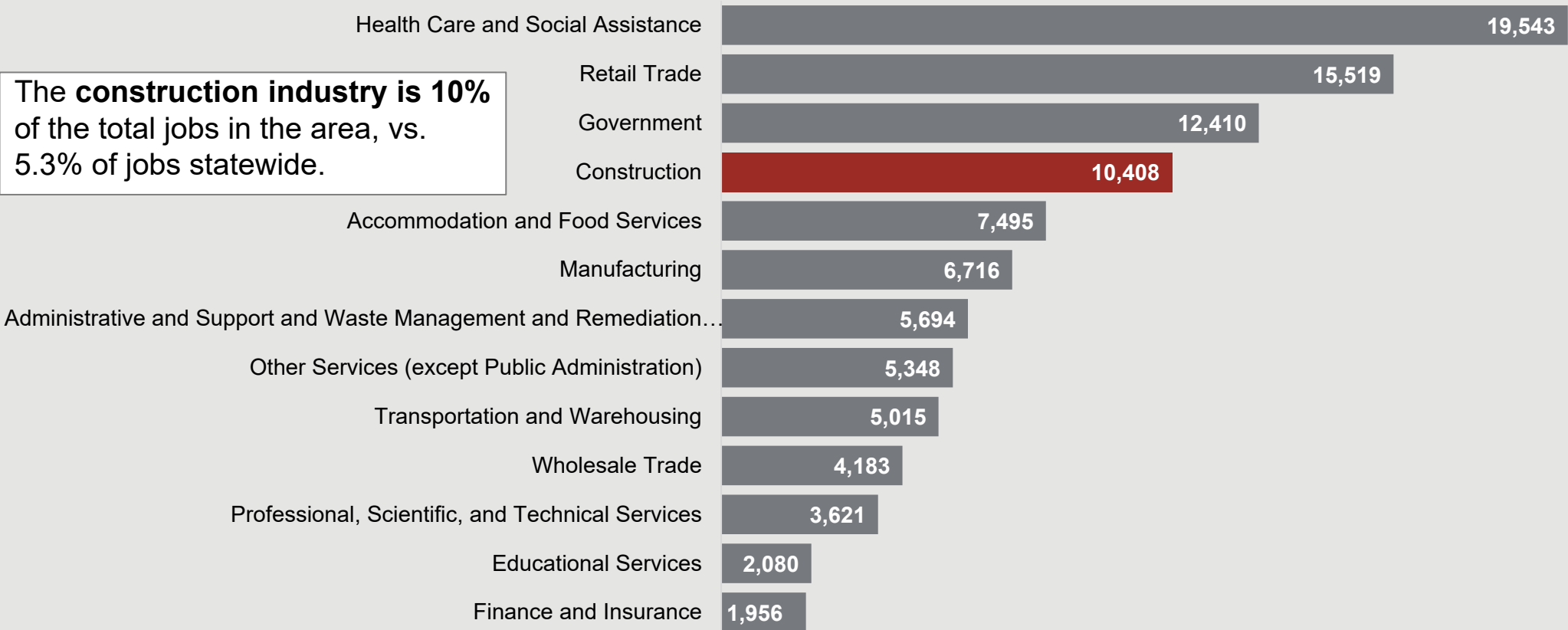


Source: Lightcast, UMDI Analysis

# CONSTRUCTION IS 4<sup>TH</sup> LARGEST INDUSTRY IN GREATER BROCKTON

Jobs in Greater Brockton by 2-digit NAICS Industry in 2022

The **construction industry is 10%** of the total jobs in the area, vs. 5.3% of jobs statewide.



Source: Lightcast, UMDI Analysis

SOC	Detailed Selected Occupations	2022 Jobs in Greater Brockton	SOC	Detailed Selected Occupations (continued)	2022 Jobs in Greater Brockton
47	Construction and Extraction Occupations		11	Management Occupations	
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	766	11-3013	Facilities Managers	97
47-2011	Boilermakers	<10	11-9021	Construction Managers	433
47-2021	Brickmasons and Blockmasons	90	49	Installation, Maintenance, and Repair Occupations	
47-2022	Stonemasons	21	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	370
47-2031	Carpenters	958	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	69
47-2051	Cement Masons and Concrete Finishers	119	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	418
47-2061	Construction Laborers	1,258	49-9099	Installation, Maintenance, and Repair Workers, All Other	115
47-2071	Paving, Surfacing, and Tamping Equipment Operators	79	51	Production Occupations	
47-2072	Pile Driver Operators	<10	51-4121	Welders, Cutters, Solderers, and Brazers	187
47-2073	Operating Engineers and Other Construction Equipment Operators	416	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	22
47-2081	Drywall and Ceiling Tile Installers	66	53	Transportation and Material Moving Occupations	
47-2111	Electricians	927	53-3032	Heavy and Tractor-Trailer Truck Drivers	1,632
47-2131	Insulation Workers, Floor, Ceiling, and Wall	90	53-3033	Light Truck Drivers	1,264
47-2132	Insulation Workers, Mechanical	48	53-4011	Locomotive Engineers	41
47-2141	Painters, Construction and Maintenance	267	53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	<10
47-2142	Paperhangers	<10	53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	16
47-2151	Pipelayers	10	53-4031	Railroad Conductors and Yardmasters	47
47-2152	Plumbers, Pipefitters, and Steamfitters	928	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,706
47-2161	Plasterers and Stucco Masons	26	53-7199	Material Moving Workers, All Other	15
47-2171	Reinforcing Iron and Rebar Workers	12			
47-2181	Roofers	150			
47-2211	Sheet Metal Workers	136			
47-2221	Structural Iron and Steel Workers	81			
47-2231	Solar Photovoltaic Installers	42			
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	12			
47-3012	Helpers--Carpenters	<10			
47-3013	Helpers--Electricians	74			
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	<10			
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	31			
47-3016	Helpers--Roofers	<10			
47-3019	Helpers, Construction Trades, All Other	28			
47-4011	Construction and Building Inspectors	80			
47-4031	Fence Erectors	37			
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	33			
47-4098	Miscellaneous Construction and Related Workers	19			

Source: Lightcast, UMDI Analysis

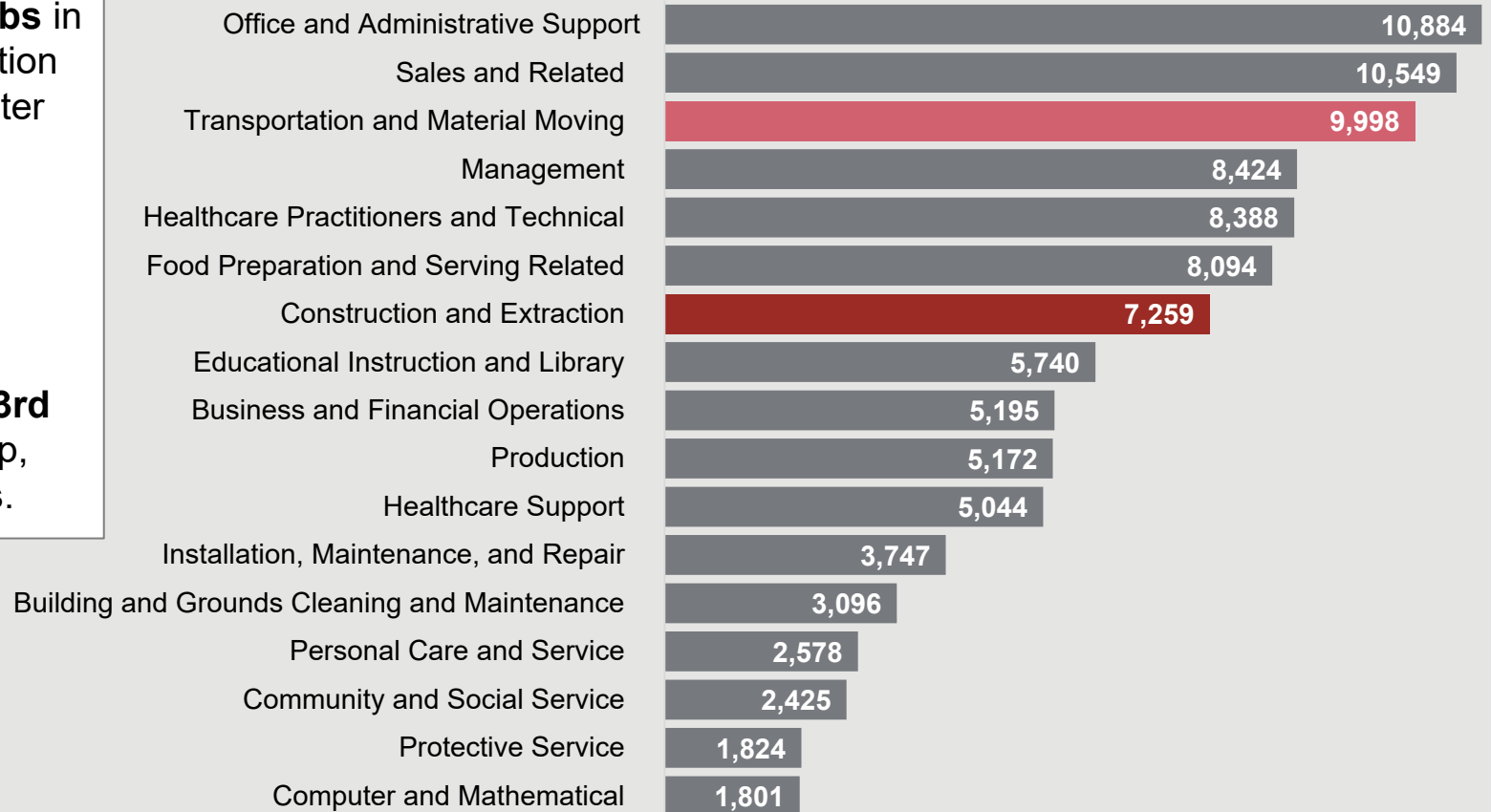


# CONSTRUCTION: 7TH LARGEST OCCUPATION GROUP

Jobs in Greater Brockton by SOC Major Occupational Groups in 2022

There are **over 7,000 jobs** in Construction and Extraction Occupations in the Greater Brockton Region, which makes it the **7th largest** occupation group.

**Transportation and Material Moving** is the **3rd largest** occupation group, with around **10,000 jobs**.

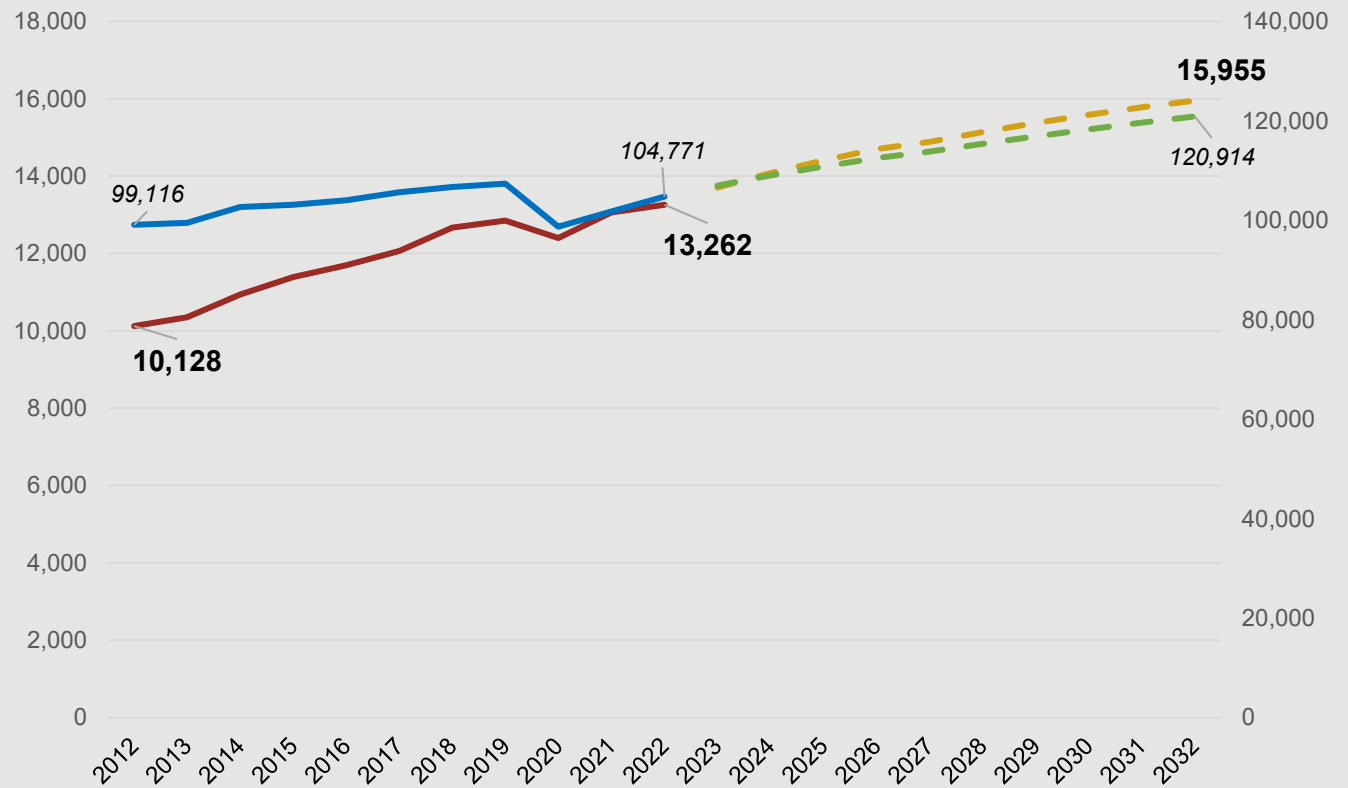


Source: Lightcast, UMDI Analysis

# JOBS UP 31% IN THE CONSTRUCTION-RELATED TRADES OCCUPATIONS IN THE LAST DECADE

Job Growth by Occupation in Greater Brockton, 2012-2032

- Total Jobs in Trades Occupations
- Total Jobs in All Occupations
- Projected Jobs in Trades Occupations
- Projected Jobs in All Occupations



Of the 51 occupations selected, there are about **13,000 jobs** in the Greater Brockton region as of 2022. This is around **10%** of all jobs in the region.

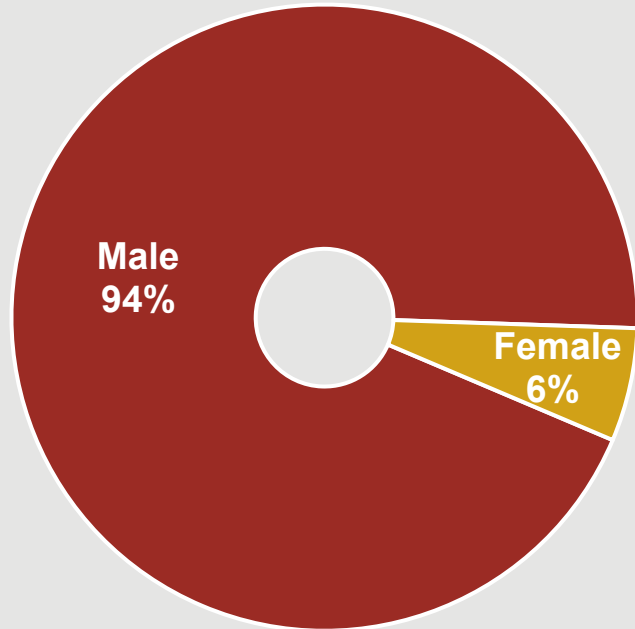
**+31% growth** from 2012

**+20% projected growth** to 2032

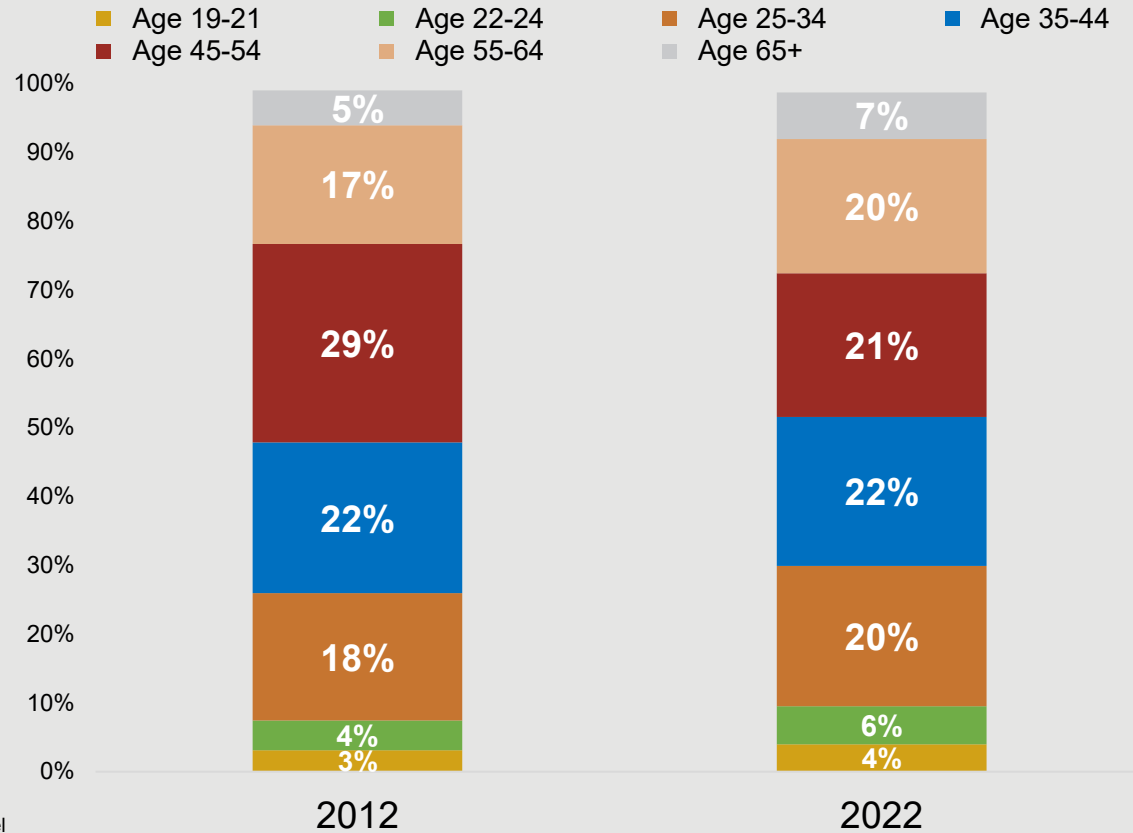
Source: Lightcast, UMDI Analysis

# TRADES OCCUPATION GROUP DEMOGRAPHICS, COUNTY

Construction-related Trades Occupation Group by Gender in Plymouth County 2022



Age Groups of Construction-related Trades Occupation Group in Plymouth County

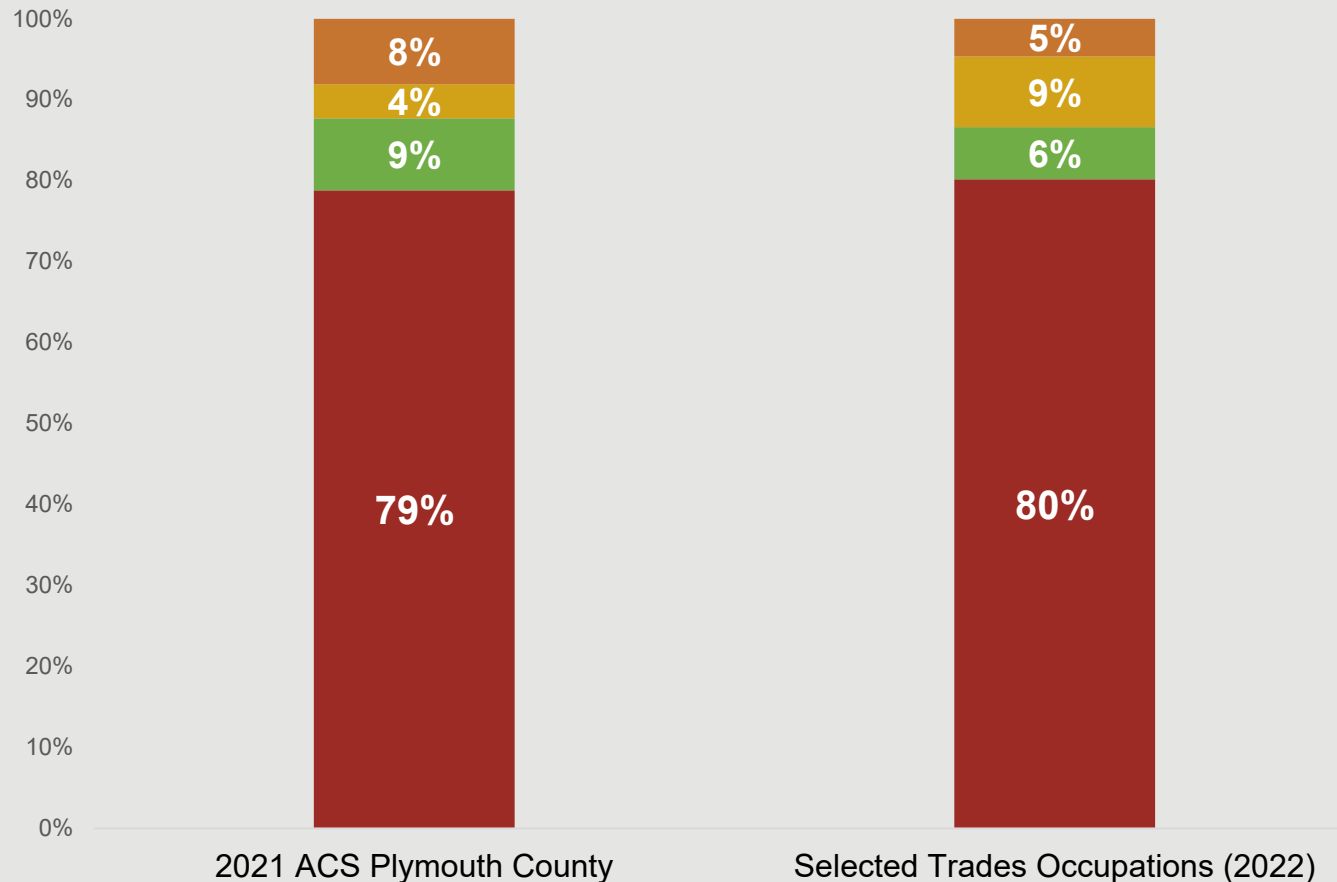


Source: Lightcast  
 Analysis is for Plymouth County as occupation demographic data is not available at the town level

# RACE AND ETHNICITY OF CONSTRUCTION-RELATED TRADES OCCUPATION GROUP, COUNTY

Race and Ethnicity in Trades Occupations vs. General Population in Plymouth County

■ White ■ Black or African American ■ Hispanic or Latino ■ All other races



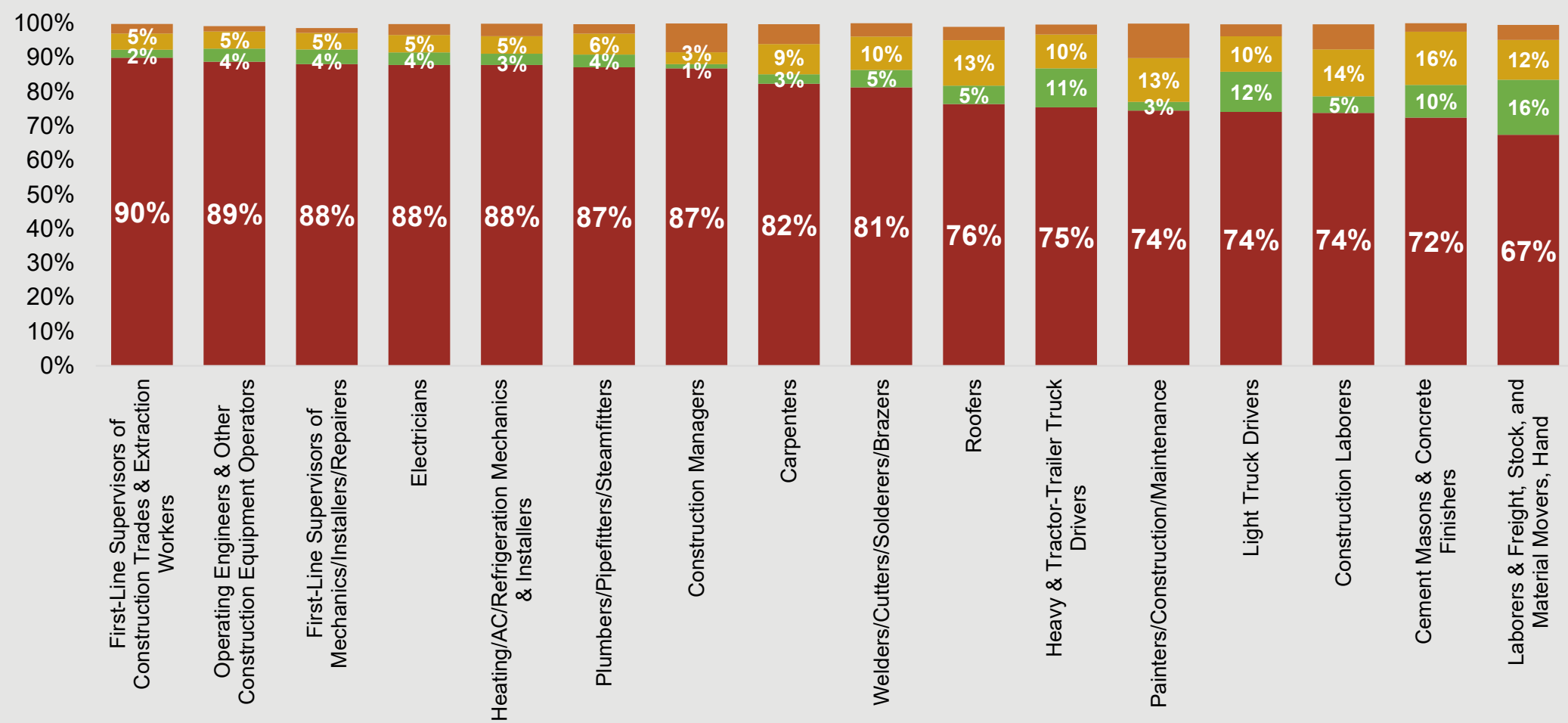
The construction-related trades occupation group has a **lower share of Black and all other races** than the general population in Plymouth County.

The occupation group has a **higher share of Hispanic/Latino workers** than the general population in Plymouth County.

Source: Lightcast, ACS 5YR 2017-2021  
 \*Analysis is for Plymouth County as occupation demographic data is not available at the town level in Lightcast  
 \*\*Hispanic or Latino category is of any race

# RACE AND ETHNICITY OF TOP CONSTRUCTION-RELATED TRADES OCCUPATIONS

■ % White (2022) ■ % Black (2022) ■ % Hispanic (2022) ■ % All Other



Source: Lightcast, UMDI Analysis \*Analysis is for Plymouth County \*\*Hispanic or Latino category is of any race

## HISTORICAL & PROJECTED GROWTH OF CONSTRUCTION-RELATED TRADES OCCUPATIONS

Construction-related Trades Occupations in Greater Brockton	Jobs 2022	Jobs 2032 (Projected)	% Change from 2012-2022	% Change from 2022-2032 (Projected)
Laborers and Freight, Stock, and Material Movers, Hand	1,706	1,974	31%	16%
Heavy and Tractor-Trailer Truck Drivers	1,632	1,919	43%	18%
Light Truck Drivers	1,264	1,483	21%	17%
Construction Laborers	1,258	1,488	19%	18%
Carpenters	958	1,059	9%	11%
Plumbers, Pipefitters, and Steamfitters	928	1,147	79%	24%
Electricians	927	1,244	88%	34%
First-Line Supervisors of Construction Trades and Extraction Workers	766	935	63%	22%
Construction Managers	433	526	38%	22%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	418	569	16%	36%
Operating Engineers and Other Construction Equipment Operators	416	497	55%	19%
First-Line Supervisors of Mechanics, Installers, and Repairers	370	434	20%	17%
Painters, Construction and Maintenance	267	291	-9%	9%
Welders, Cutters, Solderers, and Brazers	187	224	31%	20%
Roofers	150	171	39%	14%
Sheet Metal Workers	136	169	-20%	25%
Cement Masons and Concrete Finishers	119	137	108%	15%
Installation, Maintenance, and Repair Workers, All Other	115	130	14%	13%

Source: Lightcast, UMDI Analysis

# SELECTED CONSTRUCTION-RELATED TRADES' REGIONAL EMPLOYMENT STRENGTH

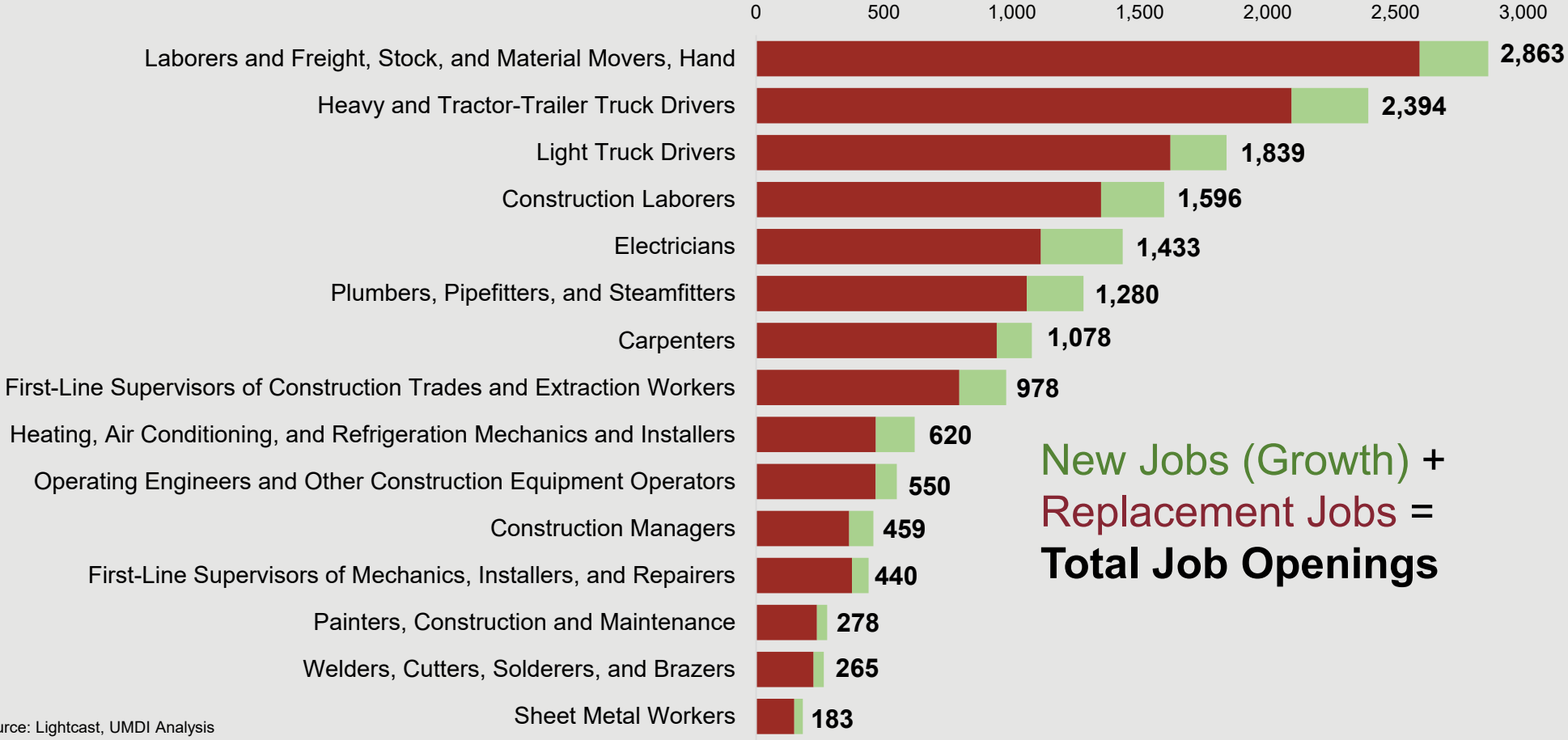
Employment Concentration of Construction-Related Trades Occupations in Greater Brockton in 2022



Source: Lightcast, UMDI Analysis

# PROJECTED JOB OPENINGS, CONSTRUCTION-RELATED TRADES OCCUPATION

■ Replacement Jobs (2022-2032) ■ Jobs from Growth (2022-2032)

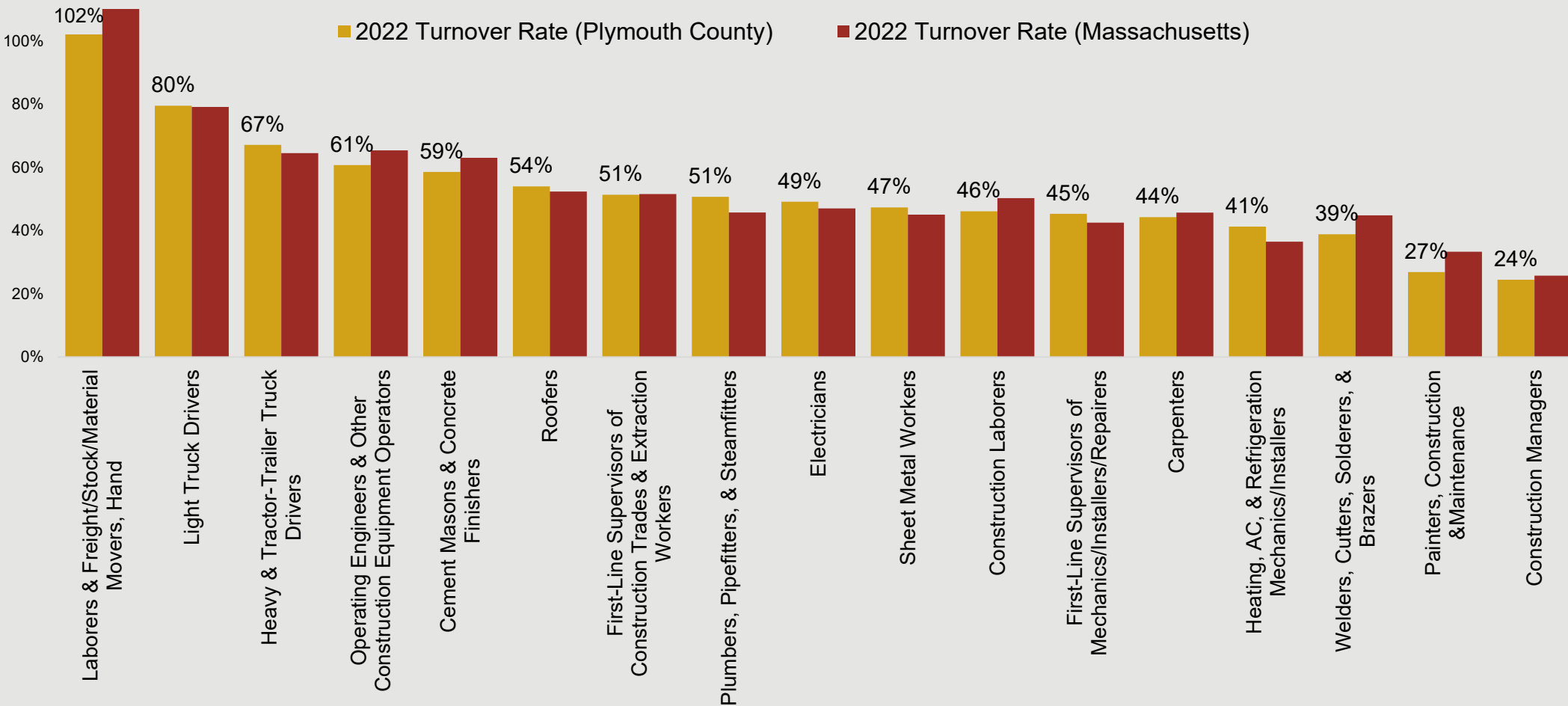


**New Jobs (Growth) + Replacement Jobs = Total Job Openings**

Source: Lightcast, UMDI Analysis



# OCCUPATIONAL TURNOVER RATES



Source: Lightcast, UMDI Analysis

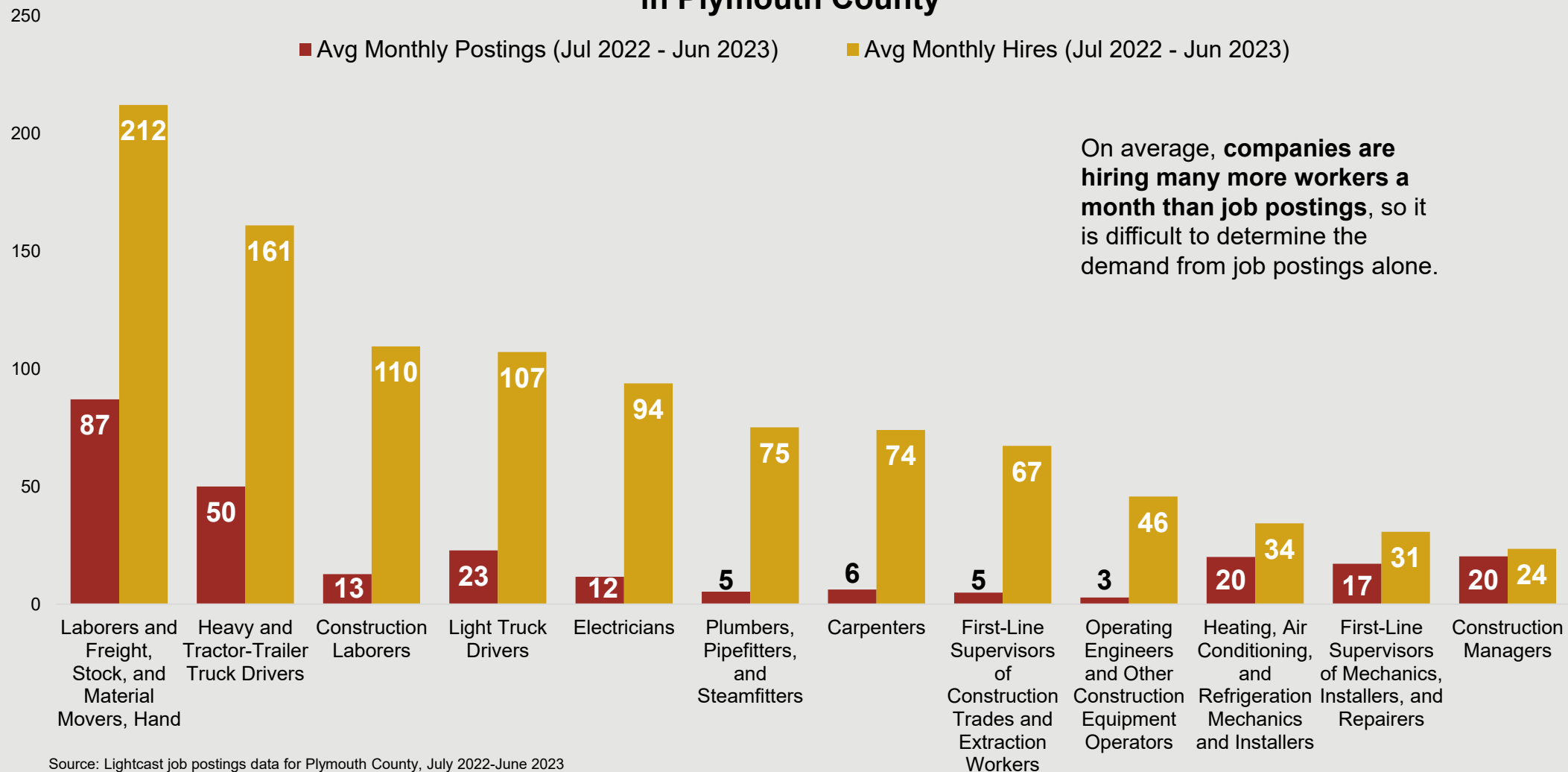
## CONSTRUCTION-RELATED TRADES OCCUPATIONS WITH THE MOST JOB POSTINGS, FY23

Occupation (SOC)	Unique Job Postings (July 2022 - June 2023)
Laborers and Freight, Stock, and Material Movers, Hand	1,045
Heavy and Tractor-Trailer Truck Drivers	600
Light Truck Drivers	274
Construction Managers	244
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	241
First-Line Supervisors of Mechanics, Installers, and Repairers	206
Construction Laborers	153
Electricians	140
Facilities Managers	78
Carpenters	75

Source: Lightcast job postings data for Plymouth County, July 2022-June 2023

## Average Monthly Job Postings vs. Average Monthly Hires in Plymouth County

■ Avg Monthly Postings (Jul 2022 - Jun 2023)    ■ Avg Monthly Hires (Jul 2022 - Jun 2023)



Source: Lightcast job postings data for Plymouth County, July 2022-June 2023

## MOST CONSTRUCTION TRADES OCCUPATIONS DO NOT REQUIRE A BACHELOR'S

SOC	Description	2022 Jobs	Median Annual Earnings	Typical Entry Level Education
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,706	\$37,051	No formal educational credential
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,632	\$56,183	Postsecondary nondegree award
53-3033	Light Truck Drivers	1,264	\$41,397	High school diploma or equivalent
47-2061	Construction Laborers	1,258	\$55,394	No formal educational credential
47-2031	Carpenters	958	\$57,248	High school diploma or equivalent
47-2152	Plumbers, Pipefitters, and Steamfitters	928	\$82,440	High school diploma or equivalent
47-2111	Electricians	927	\$79,291	High school diploma or equivalent
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	766	\$95,099	High school diploma or equivalent
11-9021	Construction Managers	433	\$103,109	Bachelor's degree
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	418	\$70,721	Postsecondary nondegree award
47-2073	Operating Engineers and Other Construction Equipment Operators	416	\$68,692	High school diploma or equivalent
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	370	\$77,825	High school diploma or equivalent
47-2141	Painters, Construction and Maintenance	267	\$48,353	No formal educational credential
51-4121	Welders, Cutters, Solderers, and Brazers	187	\$54,124	High school diploma or equivalent
47-2181	Roofers	150	\$62,027	No formal educational credential
47-2211	Sheet Metal Workers	136	\$76,465	High school diploma or equivalent
47-2051	Cement Masons and Concrete Finishers	119	\$73,242	No formal educational credential
49-9099	Installation, Maintenance, and Repair Workers, All Other	115	\$47,363	High school diploma or equivalent

Source: Lightcast, UMDI Analysis

# UNION APPRENTICESHIPS



There are **3 trade unions in the Greater Brockton region**: Boilermakers Local 29 in Avon, Roofers & Waterproofers Union Local (RUL) 33 in Stoughton, and Laborers International Union of North America (LIUNA) Local 721 in East Bridgewater.



**2 of these local trade unions have apprenticeship programs: RUL 33 and LIUNA 721**

There are an **additional 12 trade unions** near Greater Brockton, but technically outside of the 10-municipality region. In these unions, there are **11 apprenticeship programs** shown online.

Apprenticeship programs have a **set number of seats** and typically are only **open to applicants once a year**.



**Apprenticeship programs can be between 2 and 5 years** (the higher-skilled trades are usually 5-year programs)

# SUMMARY OF TRADE UNION ORGANIZATIONS

When discussing local trade unions in interviews and the focus group, these were the key highlights:



Union organizations **provide benefits** for trades occupations such as **health insurance and retirement benefits** including pensions.



Unions provide **training opportunities** and union workers are known for being highly-skilled.



Unions have a **good reputation for high quality work and reliable workers**.



There can be **job security** in being part of a trade union, but there is also **less flexibility** in moving around jobs.



Union labor can be **more expensive** than open shop contractors, causing some projects to choose open shop contractors especially in times of economic downturns or recession. There can also be tension between open shop contractors and union organizations.

## SUMMARY OF KEY TAKEAWAYS



**Lack of awareness** of the nature and quality of construction and trades work, as well as **job openings not being very visible and requiring networking and word of mouth** across the many small businesses, mean that **knowledge of job opportunities and career possibilities** is scarce.



The demographics of those currently in these occupations skews **more male and white**. At the same time, **pending retirements of older skilled workers** and high replacement rates mean the **demand for workers in these jobs** will only **increase over time**, creating opportunities to diversify.



**More training programs** and **more exposure to information about construction jobs** and related trades careers **is needed for a larger share of the population**. While there are union training programs available (apprenticeships) they require applications a year in advance and with the demand for workers as high as it is, even if every union apprenticeship slot were filled every year, they would **not produce enough trained and skilled workers to meet the demand**.

For more information and access to the full report,  
please visit MassHire Greater Brockton Workforce Board at  
[www.MassHireGBWB.org](http://www.MassHireGBWB.org)