

Trends in Boston Business Establishments & Payroll Employment

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The BPDA Research Division strives to understand the current environment of the city to produce quality research and targeted information that will inform and benefit the residents and businesses of Boston. The Division conducts research on Boston’s economy, population, and commercial markets for all departments of the BPDA, the City of Boston, and related organizations. The information provided in this report is the best available at the time of its publication.

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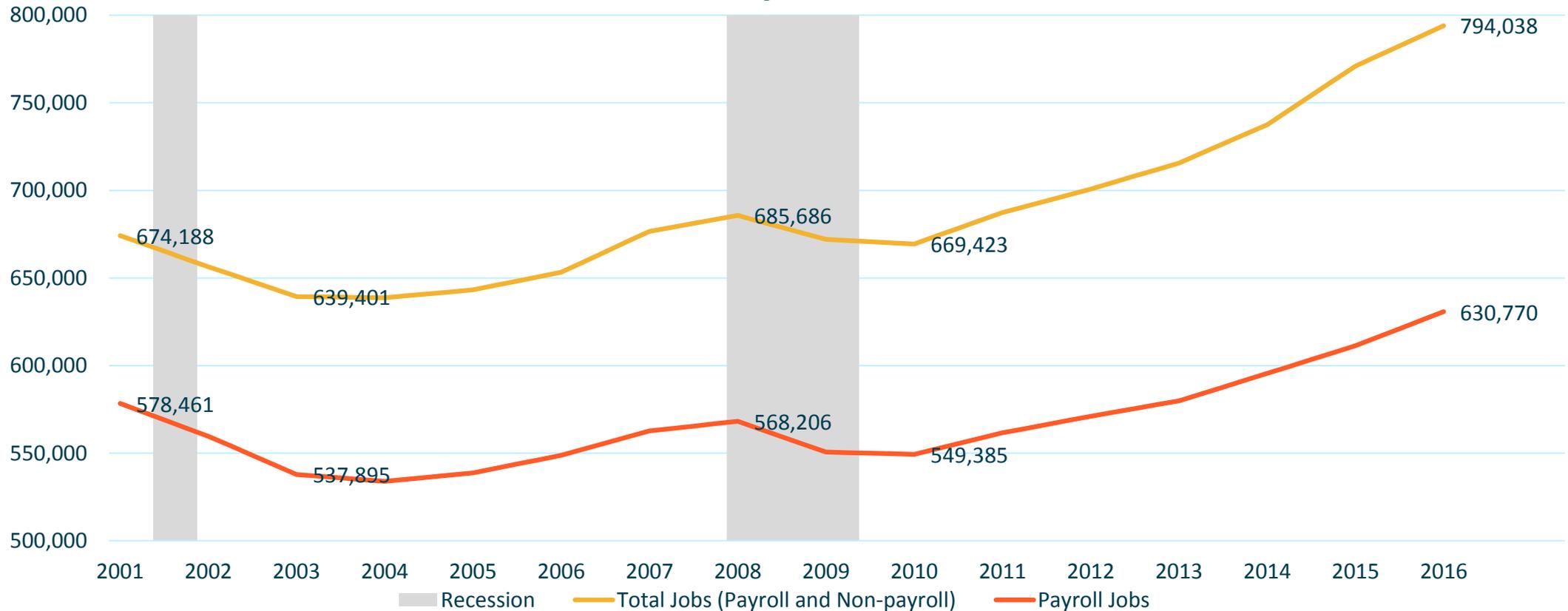
- U.S. Bureau of Economic Analysis (BEA) and Massachusetts Executive Office of Labor and Workforce Development (EOLWD), 2001-2016
 - Citywide industry-specific data on payroll employment
- U.S. Census Bureau, 1994-2015 Zip Code Business Patterns
 - Zip code-specific data on establishments and payroll employment
- U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2015)
 - Zip code- and industry- specific data on payroll employment

01.

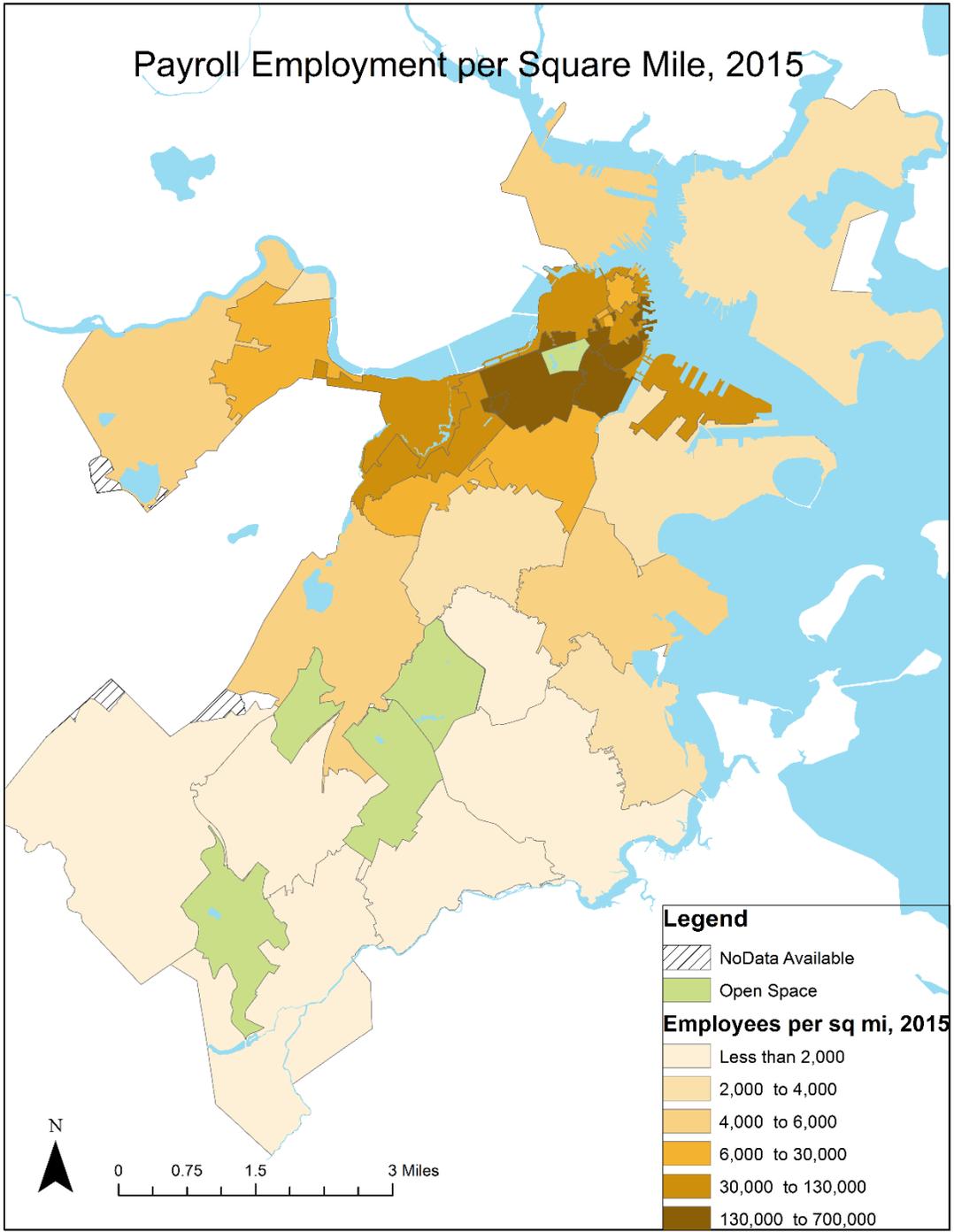
TRENDS IN EMPLOYMENT AND ESTABLISHMENTS

- In 2016, Boston's total payroll and non-payroll jobs increased to 794,038, continuing the trend of strong job growth since 2010. Total jobs are forecast to reach 829,000 by 2030.
- Payroll jobs, the focus of this report, reached a total of 630,770 in 2016.

Boston Total and Payroll Jobs, 2001-2016



Note: Shading signifies recession. Source: U.S. Bureau of Economic Analysis (BEA), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis.



Job Density

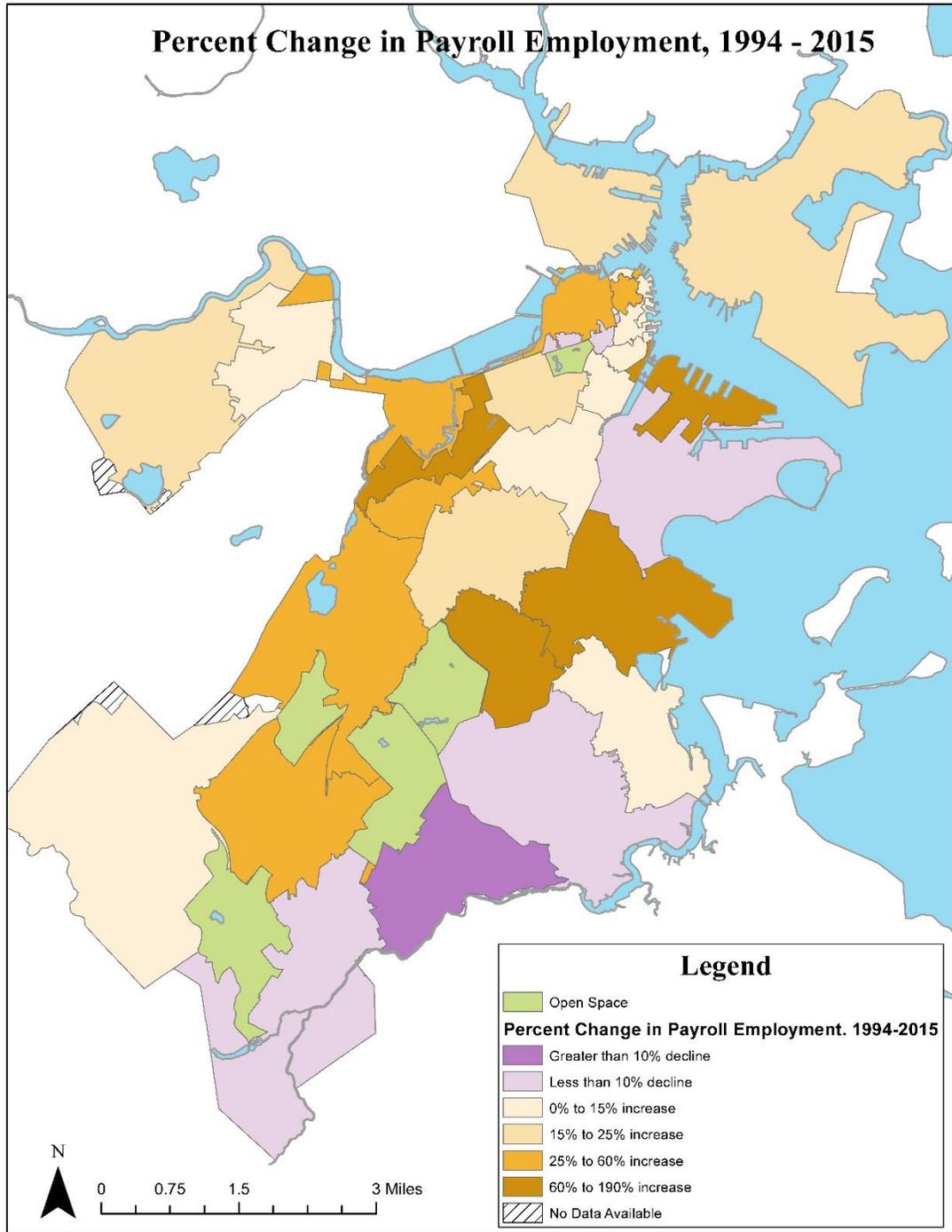
Overall, Boston has almost 13,000 payroll jobs per square mile, a job density similar to San Francisco, New York City, and Washington, DC.

The commercial core of Boston has a high density of employment.

Downtown/North End, Fenway/Kenmore, Back Bay, West End/Beacon Hill, South Boston Waterfront, and Allston/Brighton accounted for 78% of Boston’s employment in 2015, up from 75% in 1994.

In 2015, Downtown/North End had 163,845 jobs per square mile. In contrast, Mattapan had only 981 jobs per square mile.

Source: U.S. Census, 2015 Zip Code Business Patterns, BPDA Research Division Analysis



Change in Payroll Employment

From 1994 to 2015, payroll employment in parts of Roxbury and Dorchester (zip codes 02121 and 02125) increased by 62%.

Payroll employment in the South Boston Waterfront increased by 188% from 1994 to 2015.

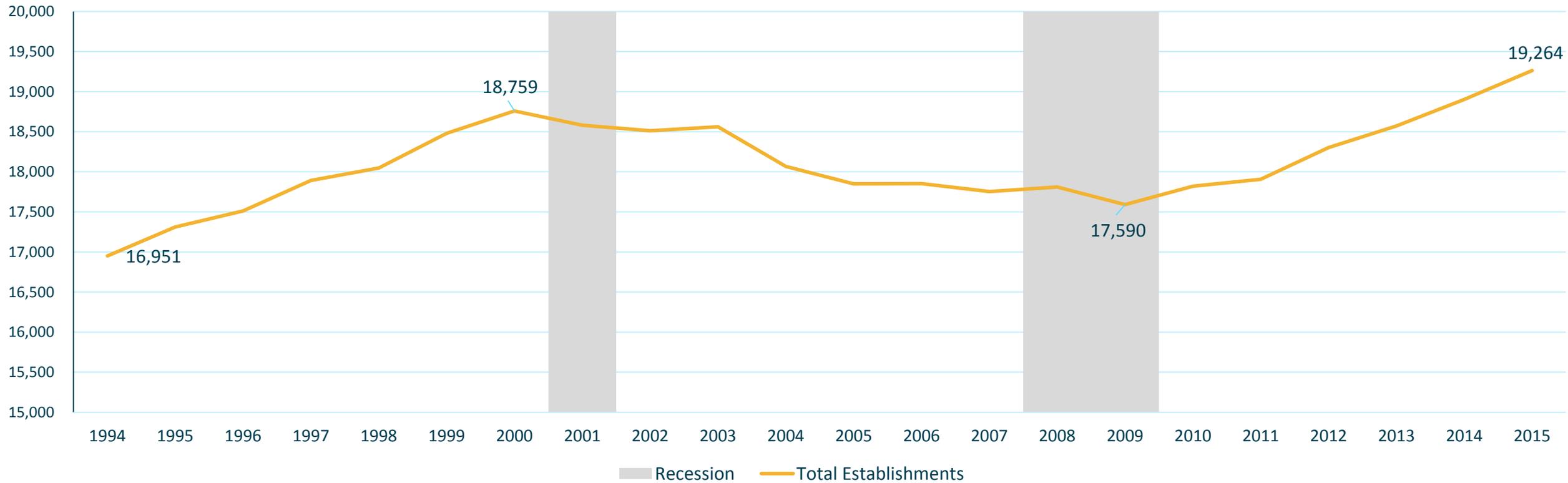
Payroll employment also increased dramatically in zip code 02115 which extends from Longwood to the Back Bay along Huntington Avenue.

Mattapan experienced a 28% decline in payroll employment since 1994.

Source: U.S. Census, 1994 & 2015 Zip Code Business Patterns, BPDA Research Division Analysis

- The number of business establishments in Boston fell from 2000 to 2009, but rose from 2009 to 2015.
- In 2015, there were 19,264 establishments in Boston, up from 17,590 in 2009.

Business Establishments in Boston, 1994-2015



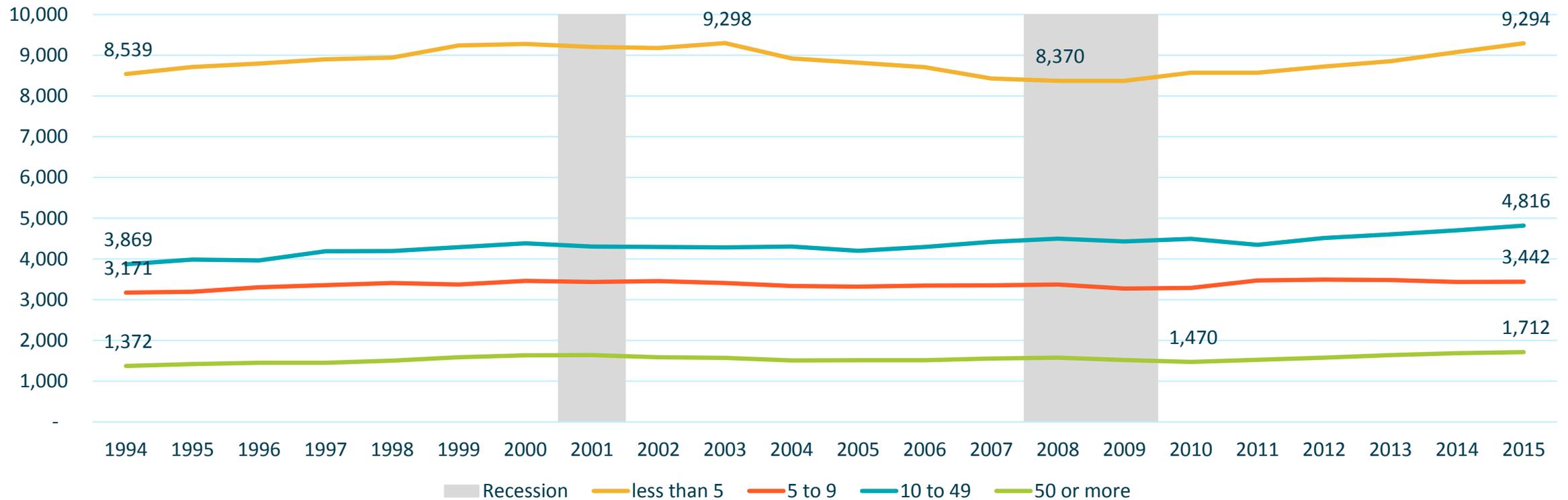
Boston's largest employers reflect the dominance of the Healthcare and Education industries, which account for 14 of the top 20 largest employers in the city.

| Rank | Employer | Employment | Share of City Employment | Industry |
|------|--------------------------------------|------------|--------------------------|---------------------|
| 1 | Massachusetts General Hospital | 17,640 | 2.2% | Healthcare |
| 2 | Brigham and Women's Hospital | 13,365 | 1.7% | Healthcare |
| 3 | Boston Public Schools | 10,255 | 1.3% | Education |
| 4 | Boston University | 9,960 | 1.3% | Education |
| 5 | Boston Children's Hospital | 9,760 | 1.2% | Healthcare |
| 6 | MBTA/Mass DOT | 8,485 | 1.1% | Transportation |
| 7 | Beth Israel Deaconess Medical Center | 8,305 | 1.0% | Healthcare |
| 8 | State Street Bank & Trust Company | 7,500 | 0.9% | Finance & Insurance |
| 9 | Harvard University Graduate Schools | 5,680 | 0.7% | Education |
| 10 | Northeastern University | 5,390 | 0.7% | Education |
| 11 | Fidelity Investments | 5,100 | 0.6% | Finance & Insurance |
| 12 | Dana Farber Cancer Institute | 4,826 | 0.6% | Healthcare |
| 13 | UMass Boston | 4,754 | 0.6% | Education |
| 14 | Boston Medical Center | 4,395 | 0.6% | Healthcare |
| 15 | Liberty Mutual | 4,000 | 0.5% | Finance & Insurance |
| 16 | Tufts Medical Center | 3,925 | 0.5% | Healthcare |
| 17 | John Hancock | 3,750 | 0.5% | Finance & Insurance |
| 18 | Boston College | 3,500 | 0.4% | Education |
| 19 | Wayfair | 3,500 | 0.4% | Retail |
| 20 | Department of Veteran's Affairs | 3,370 | 0.4% | Healthcare |

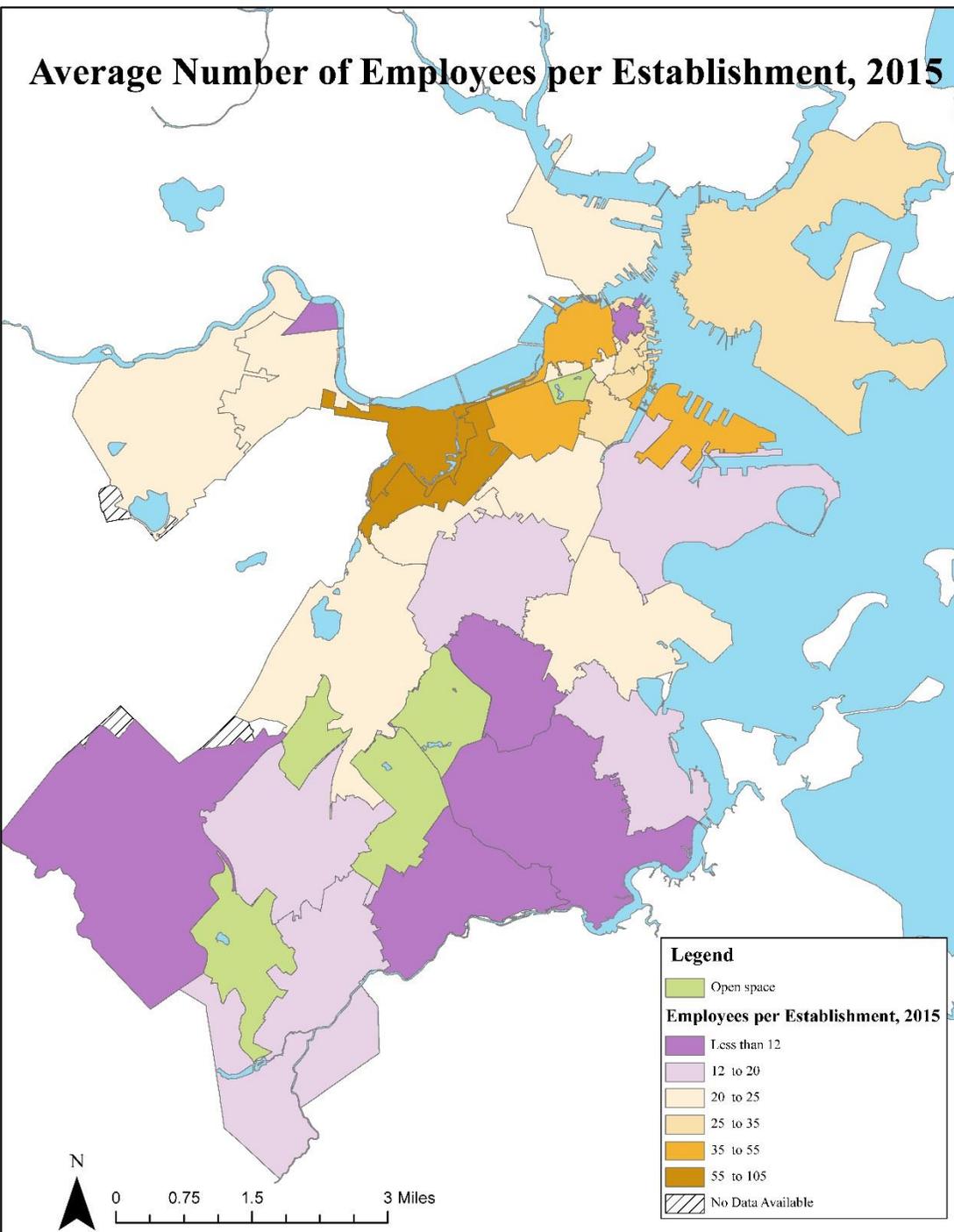


- In terms of employees, Boston businesses are bigger than the national average and have been getting bigger.
- In 2015, the average number of employees per establishment in Boston was 31, almost double that of the nation.
- The average establishment size has increased in Boston from 27 employees in 1994 to 31 in 2015.
- The share of Boston establishments with less than 10 employees has decreased since 1994 from 69% to 66%.
- Approximately 9% of Boston establishments have 50 or more employees, higher than the national share of 5%.

Boston Establishments by Number of Employees (1994-2015)



Average Number of Employees per Establishment, 2015



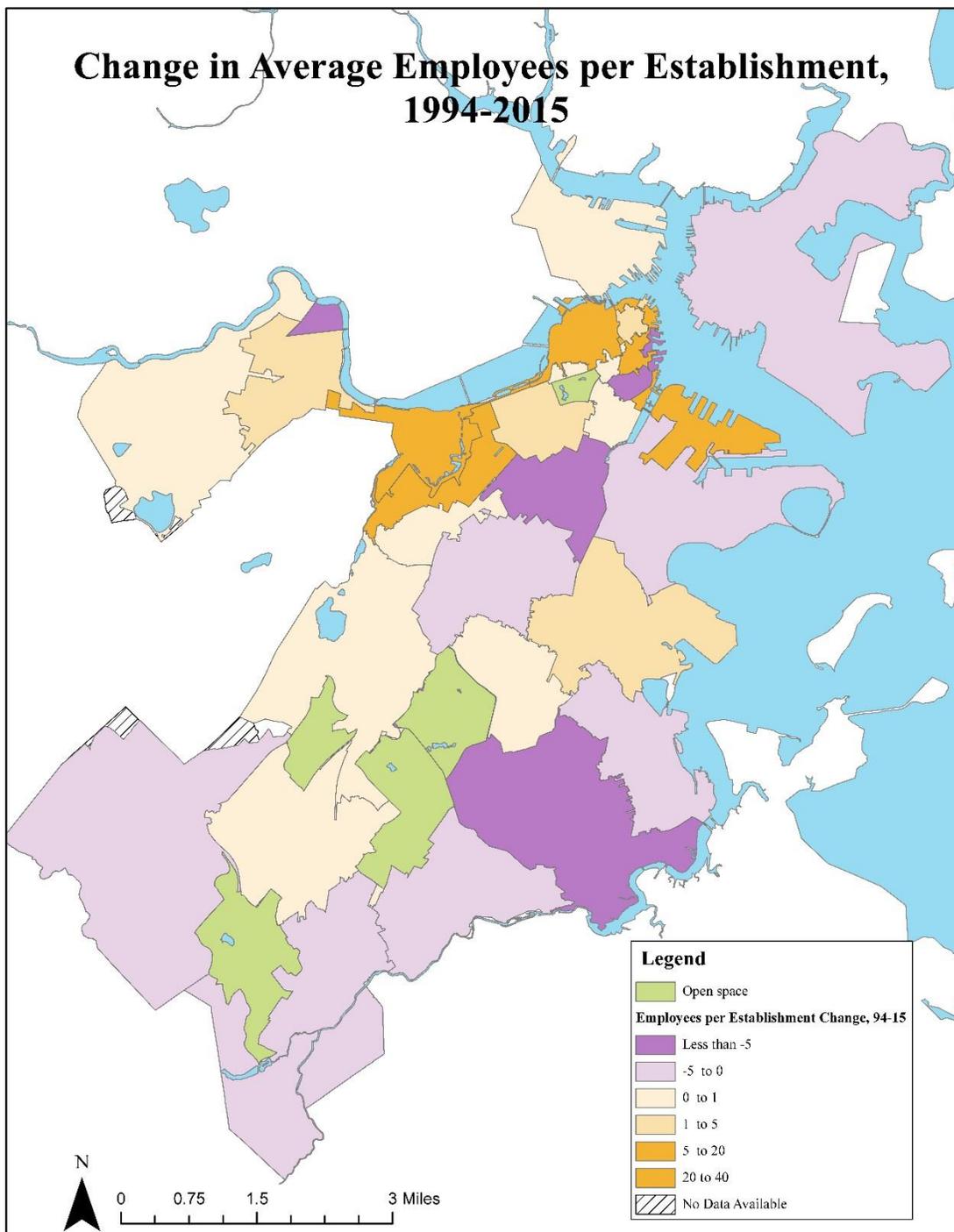
Employees per Establishment

Fenway/Kenmore and parts of Back Bay have the largest business establishments with an average number of employees over 100.

In contrast, West Roxbury and parts of Mattapan, Dorchester, and Roxbury average around 10 employees per establishment.

Source: U.S. Census, 2015 Zip Code Business Patterns, BPDA Research Division Analysis
An establishment consists of a single location or facility. A firm may consist of many establishments.

Change in Average Employees per Establishment, 1994-2015



Changes in Employees per Establishment

Fenway/Kenmore, West End/Beacon Hill, and South Boston Waterfront significantly increased average employees per establishment since 1994.

Fenway/Kenmore went from 65 employees per establishment in 1994 to 102 employees in 2015.

Establishments in the South End fell from an average of 30 employees to an average of 22 employees.

Zip code 02124 in Dorchester fell from an average of 16 employees per establishment in 1994 to 11 employees in 2015.

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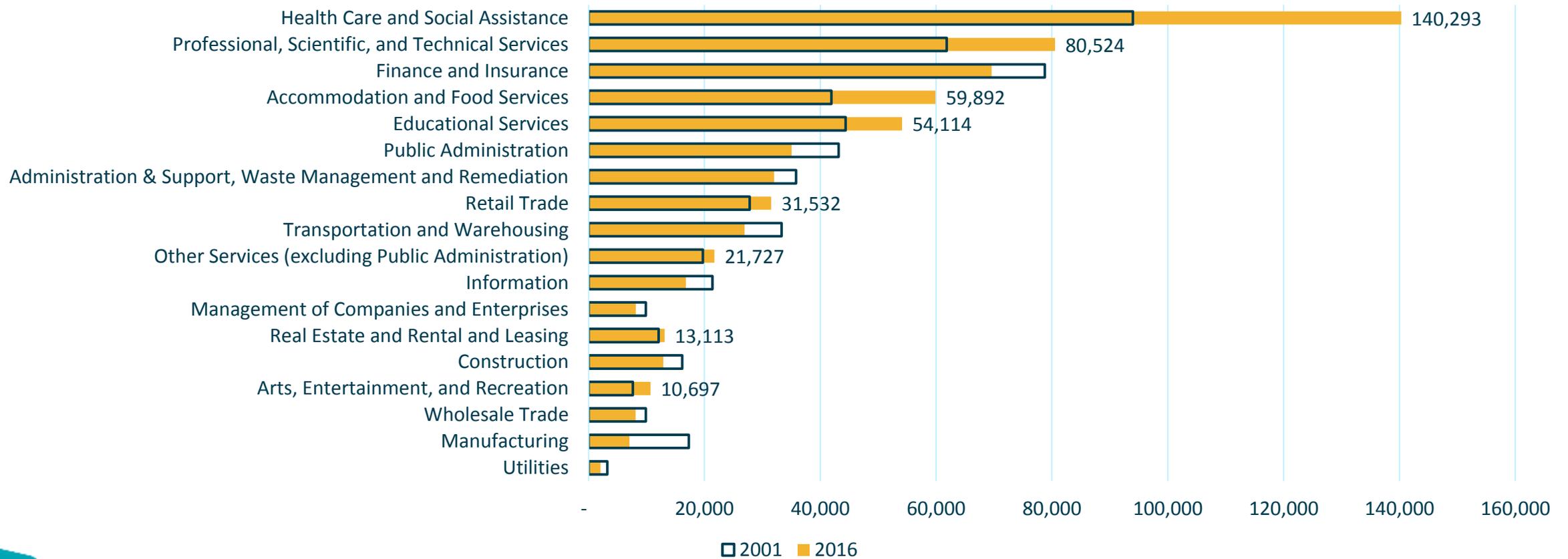
INDUSTRY TRENDS



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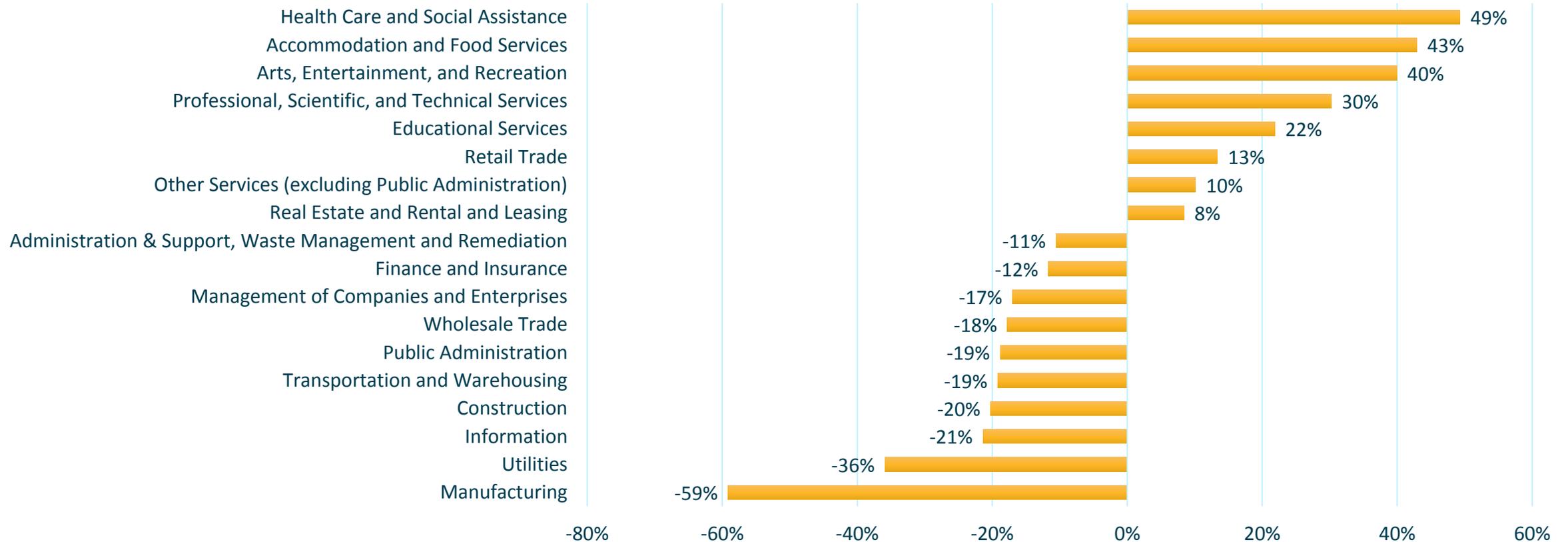
- The industries with the most payroll jobs in Boston are Health Care & Social Assistance and Professional, Scientific, and Technical Services.
- Finance and Insurance still has almost 70,000 jobs in Boston, but it has lost more than 9,000 jobs since 2001.

Boston Payroll Jobs by Industry, 2001-2016



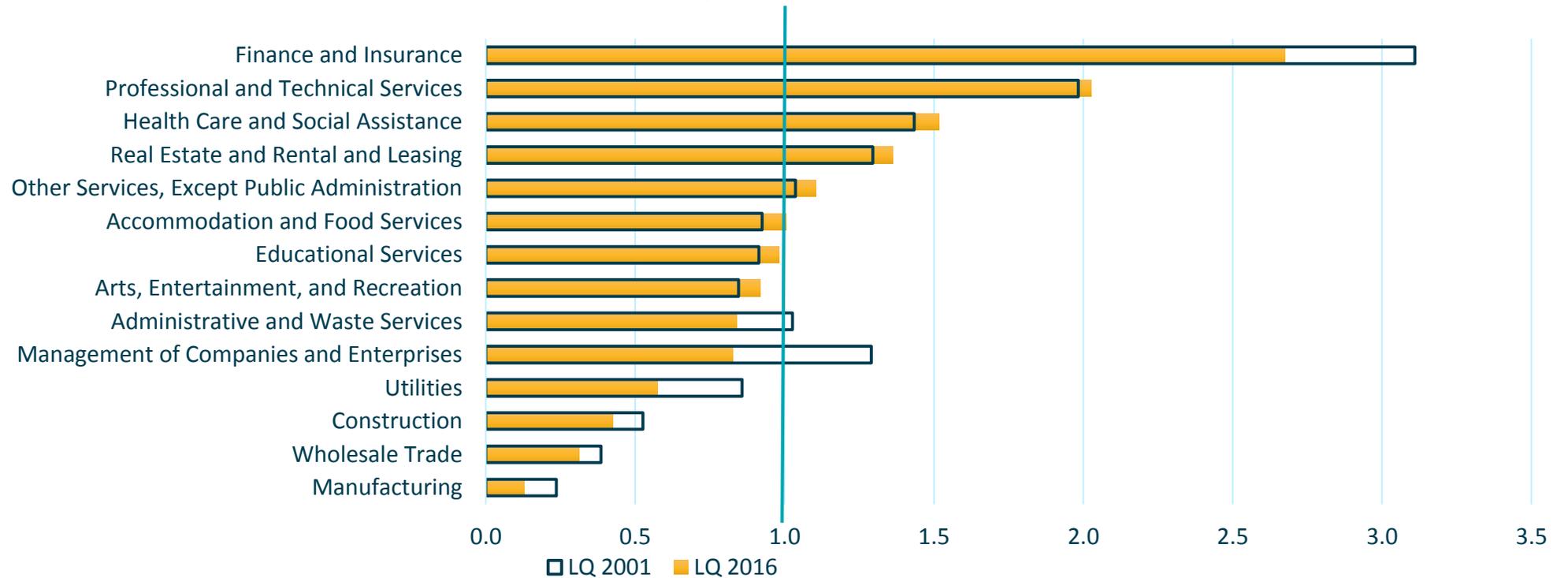
- Healthcare and Social Assistance, Accommodation & Food Services, and Arts, Entertainment, and Recreation had the largest percentage gains in employment over the past 15 years.
- Manufacturing and Utilities had the largest percentage decreases in employment.

Growth in Payroll Jobs by Industry, 2001-2016

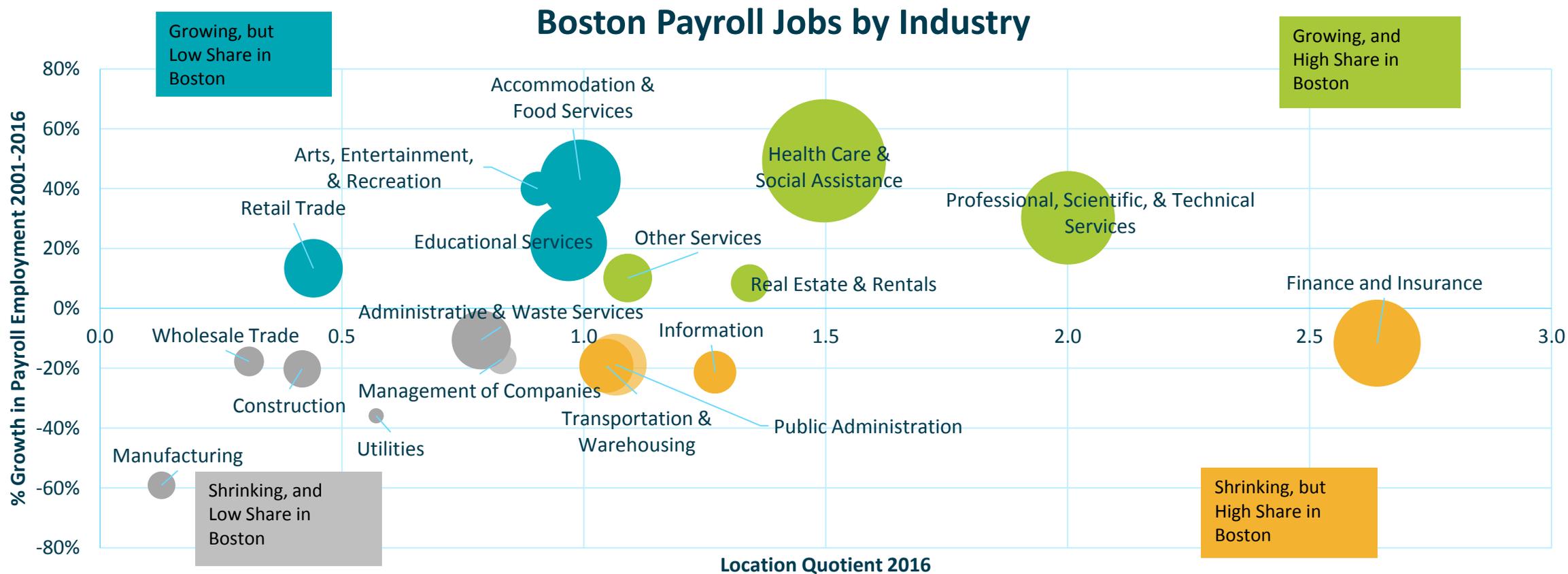


- Location quotients are ratios that measure the relative concentration of an industry in an area. Compared to the nation as a whole, Boston has a higher share of employment in the industries with location quotients greater than one.
- Boston specializes in Finance & Insurance, but less so in 2016 than in 2001.
- Boston has increased its specialization in Professional, Scientific, & Technical Services, Health Care and Social Assistance, Real Estate, and Other Services.
- In 2001, Boston also specialized in Business Management and Administrative Services, but not in 2016.

Location Quotients, 2001 & 2016



- Health Care & Social Assistance is the largest and one of the fastest growing industries in Boston.
- Despite recent declines, Boston still has more than 2.5 times the employment share in Finance and Insurance than the national average.
- Employment in Professional, Scientific, and Technical Services has grown by 30% since 2001 and is double the national share of employment.
- Manufacturing employment has fallen by almost 60% since 2001 and represents a much smaller share of Boston employment than the national average.

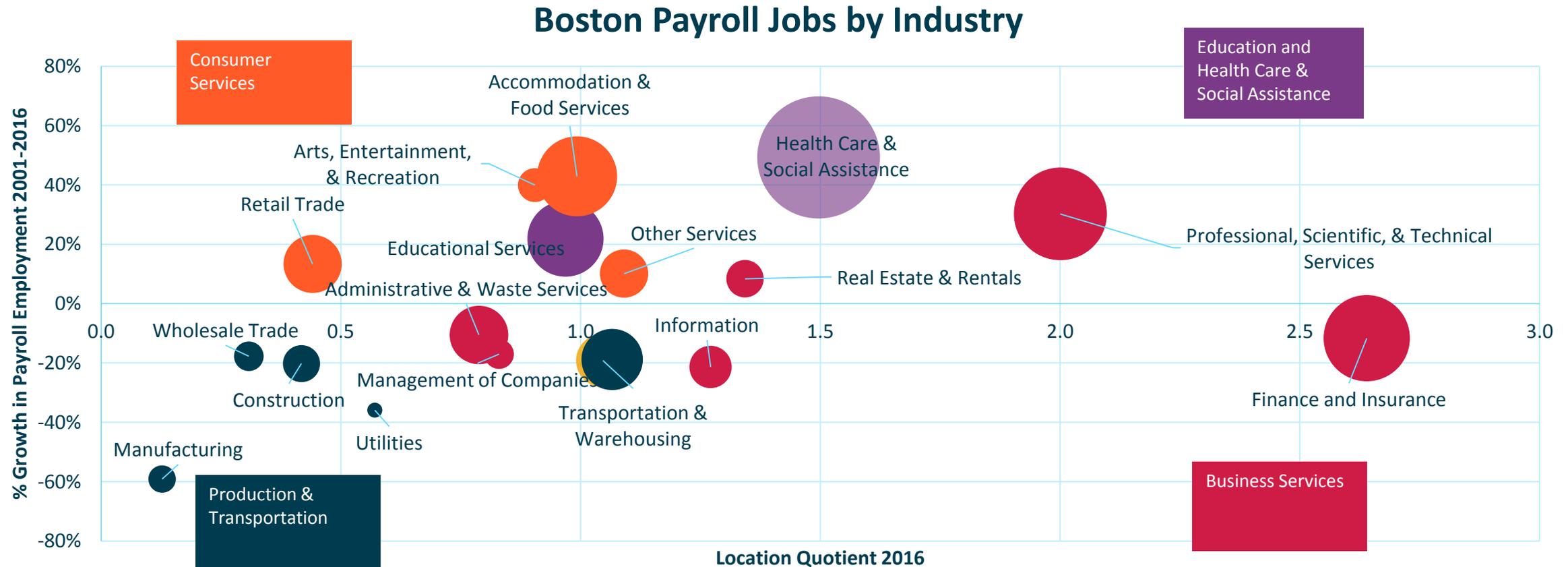


Bubble size represents jobs in 2016.

Source: Bureau of Labor Statistics (BLS), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

Industries can be grouped into four categories:

- Consumer Services – Accommodation & food services, arts, entertainment, & recreation, and retail trade.
- Education and Health Care & Social Assistance
- Business Services – Finance & insurance, professional, scientific, and technical services, real estate & rentals, management, information, administrative & waste services
- Production & Transportation – transportation, warehousing, construction, wholesale trade, manufacturing, & utilities

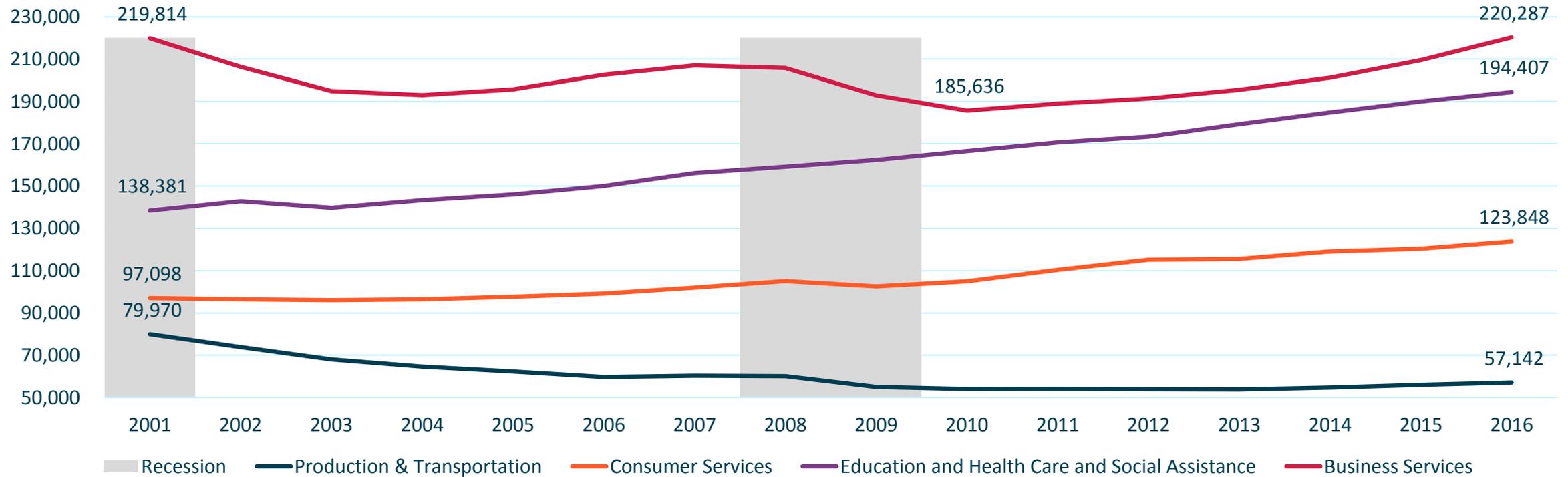


Bubble size represents jobs in 2016.

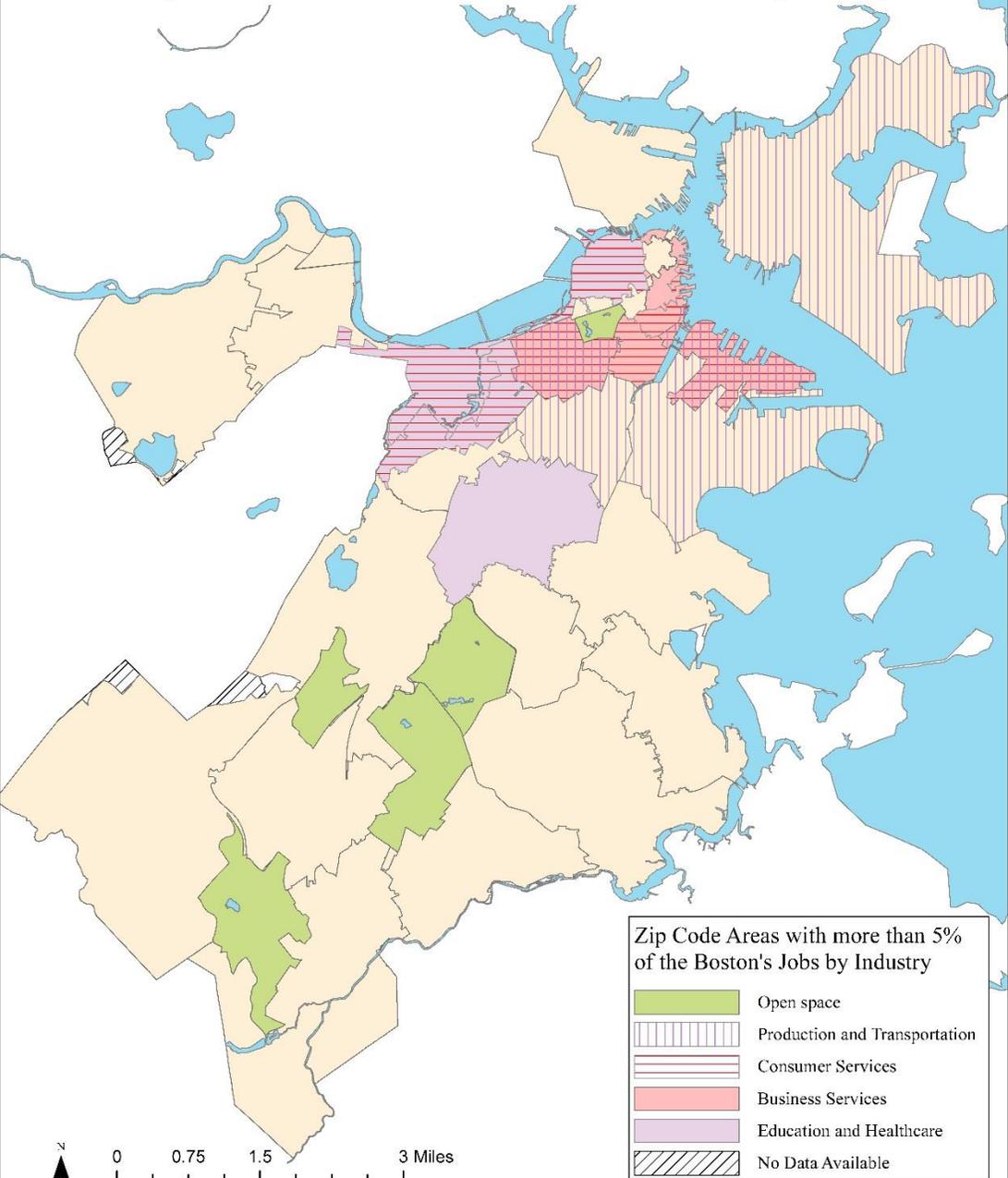
Source: Bureau of Labor Statistics (BLS), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

- Business Service industry employment has declined with the recessions. Since 2010, it has grown 19% to recover its 2001 level.
- Education and Health Care and Social Assistance employment has grown steadily – growing by 40% since 2001.
- Consumer Service industry employment has grown by 27.5% since 2001.
- Production and Transportation employment has been steadily declining.

Employment Growth by Industry Category, 2001-2016



Zip Codes Areas with more than 5% of the Boston's Jobs by Industry



Production and transportation jobs are concentrated in zip codes in East Boston, South Boston Waterfront, South Boston, and the Back Bay.

Consumer services jobs are concentrated in the West End/Beacon Hill, Downtown, South Boston Waterfront, Back Bay, and Fenway/Kenmore.

Business services jobs are concentrated in Back Bay, Downtown, and the South Boston Waterfront.

Education and Healthcare jobs are concentrated in Roxbury, Fenway/Kenmore, Back Bay, and the West End.

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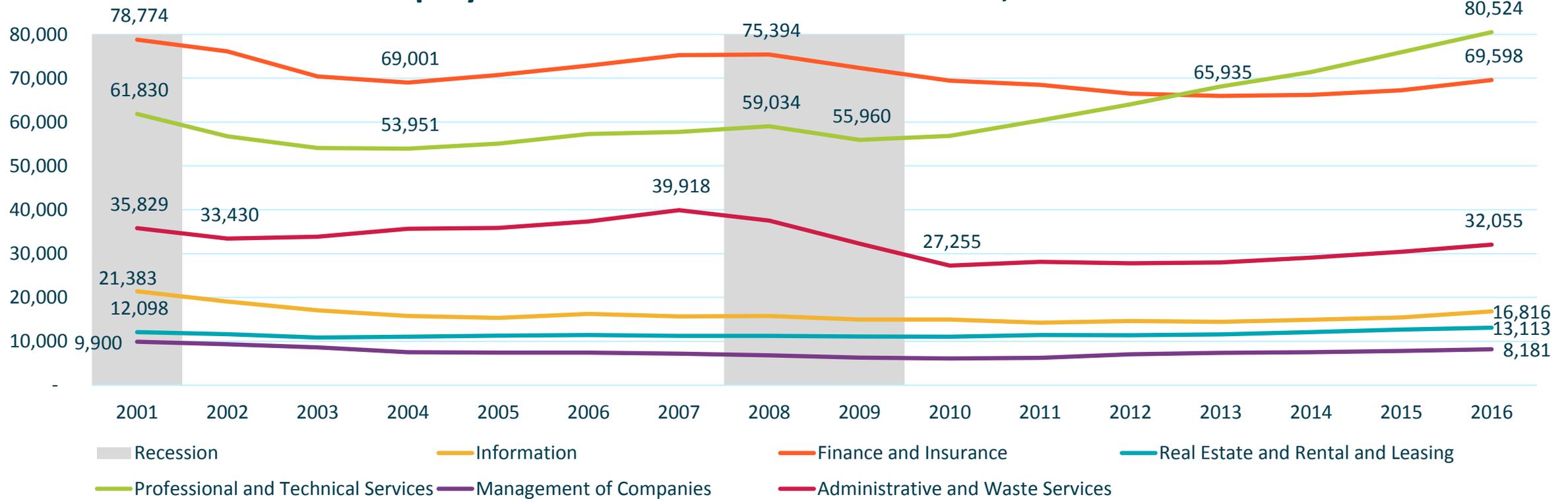
BUSINESS SERVICES



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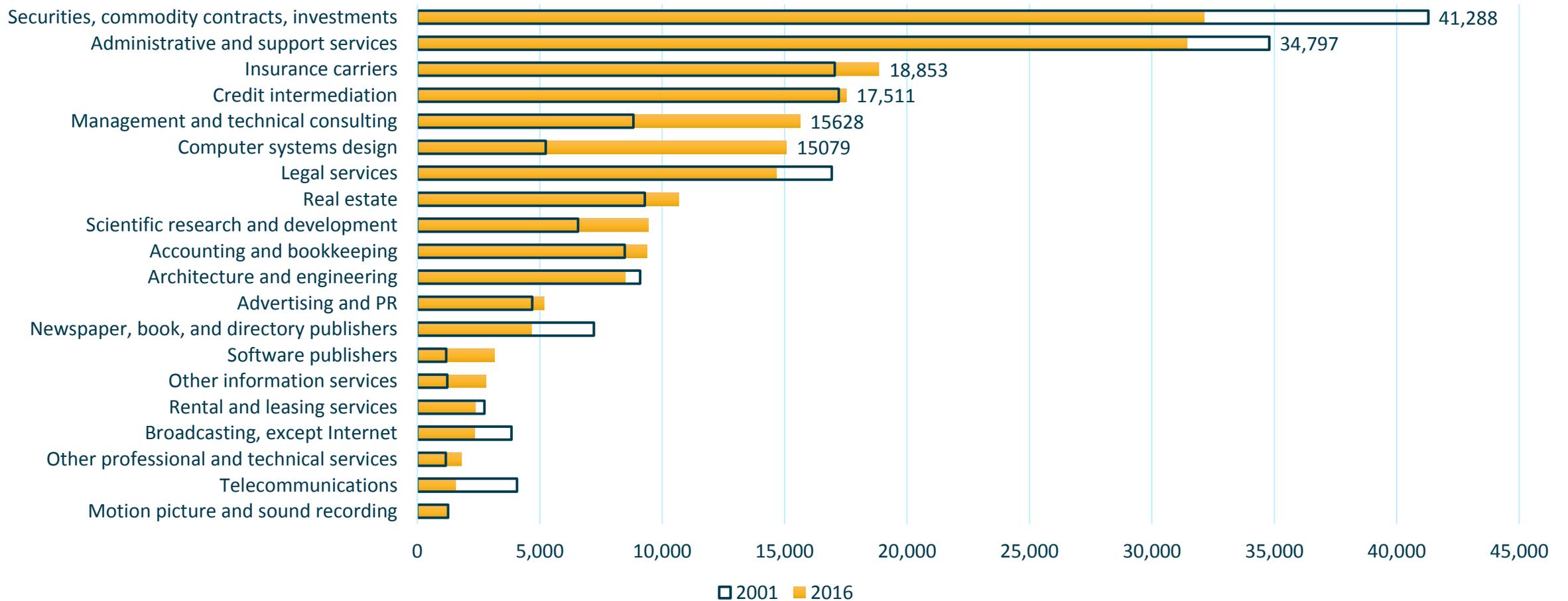
- Employment in Professional, Scientific, and Technical Services has grown 44% since 2009.
- Finance & Insurance has lost almost 13% of its employment from 2008 to 2013 before a small recent upturn.
- Administrative & Waste Services employment fell by 32% during the Recession, but has rebounded by 18% since 2010.

Employment Growth in Business Services, 2001-2016



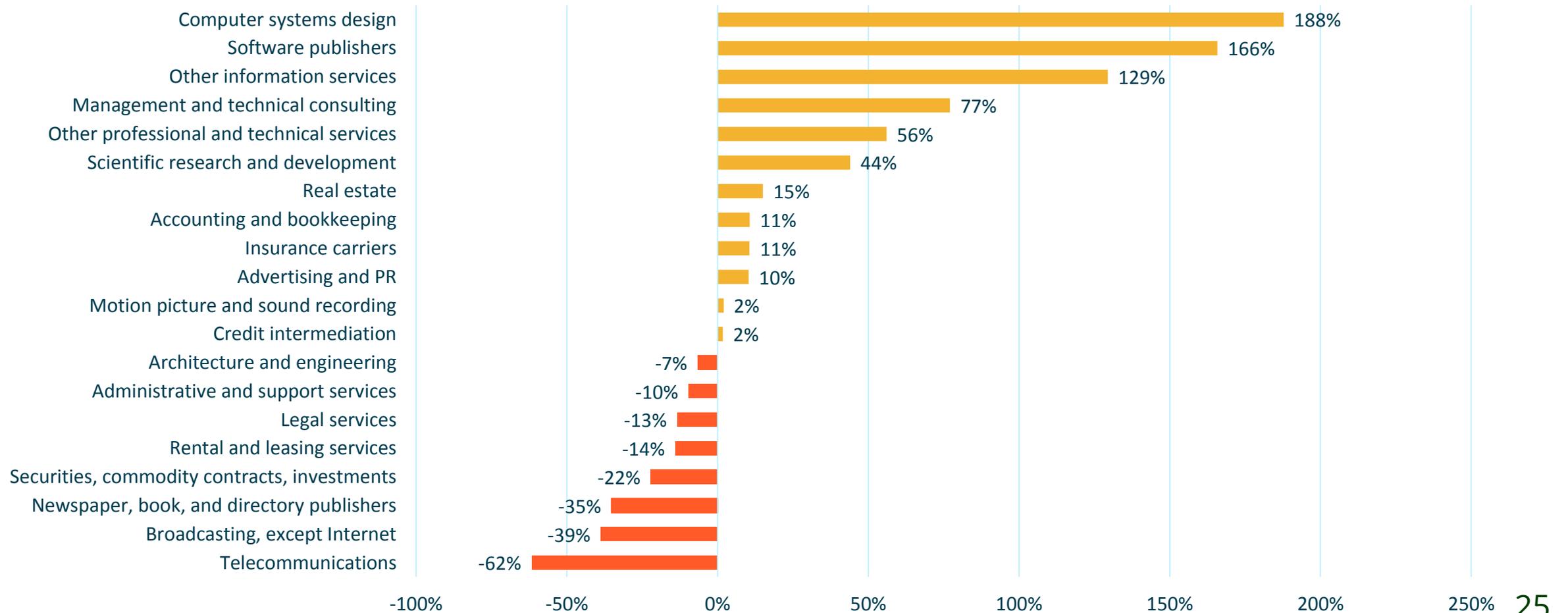
- The largest business services employers are in securities investments and administrative support, although employment has fallen since 2001.
- The largest growing industries are Insurance, Credit Intermediation, Management and Technical Consulting, and Computer Systems Design.

Business Services Employment, 2001-2016



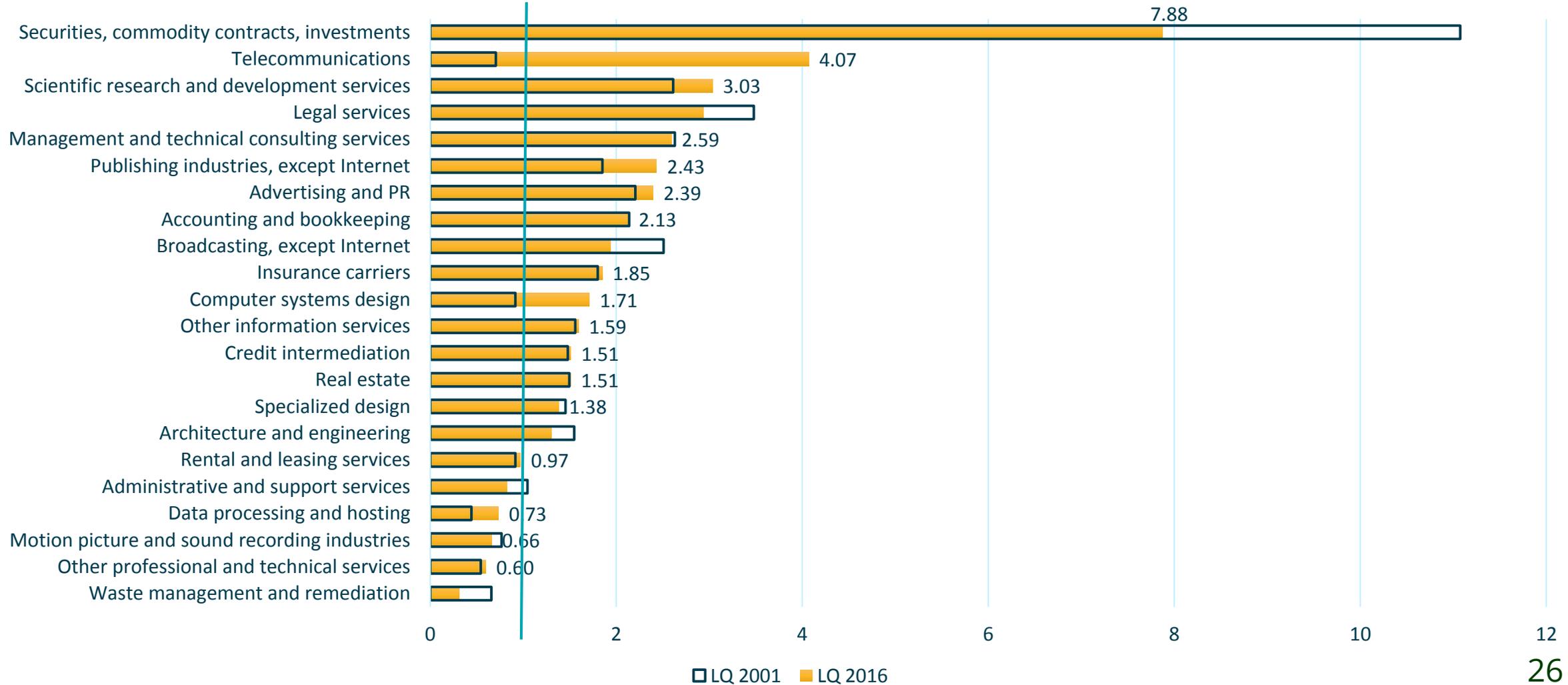
- Computer-related business services such as computer systems design and software publishers are large and rapidly growing employers.
- Newspaper and book publishing and traditional broadcasting are losing jobs.

Business Services Employment Growth 2001 to 2016



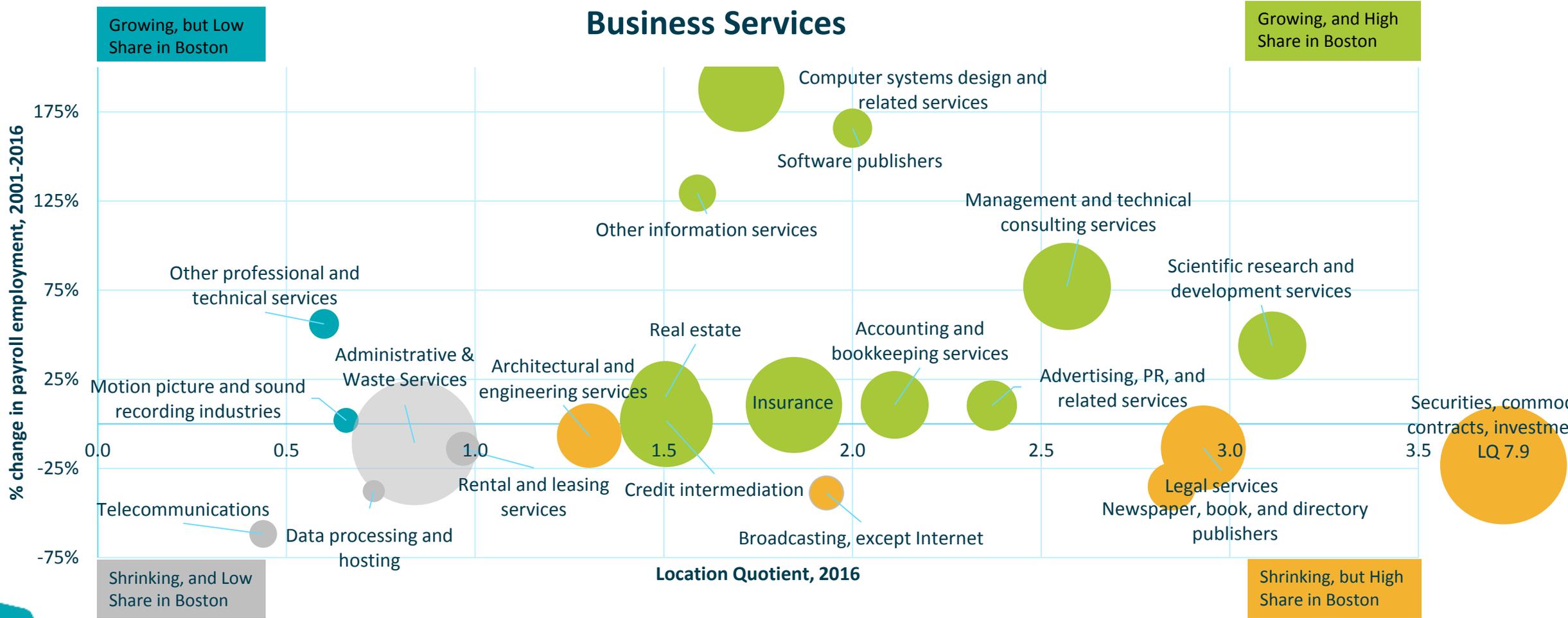
- Boston has a strong specialization in securities, commodity contracts, and investments, but not as strong as in 2001.
- Boston has growing employment and specialization in scientific R&D, software publishing, advertising and PR, and computer systems design.

Business Services Location Quotients, 2001-2016

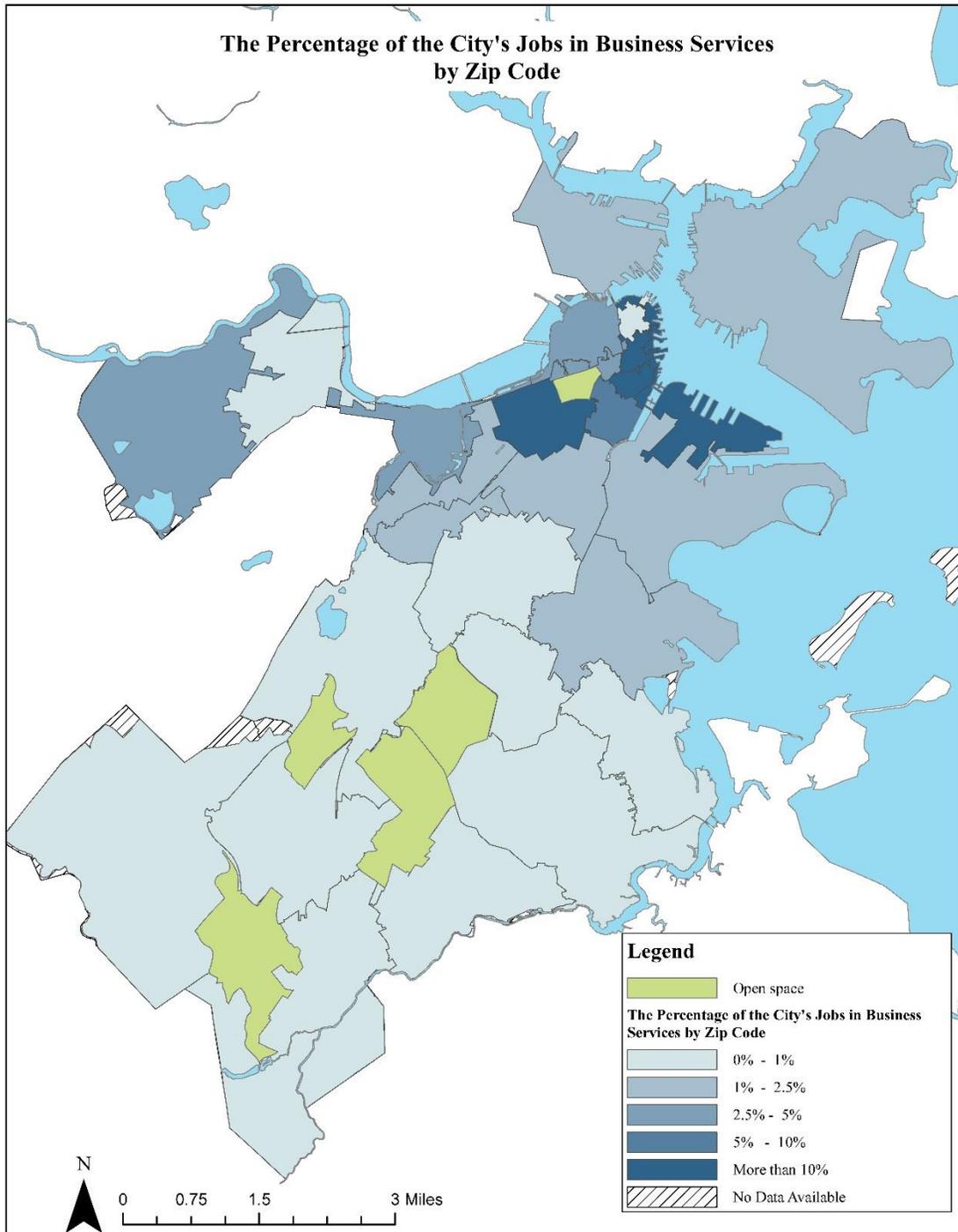


Source: Bureau of Labor Statistics (BLS), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

Scientific R&D, advertising and PR, computer systems design, software publishers, and insurance have growing employment and growing specialization in Boston.



The Percentage of the City's Jobs in Business Services by Zip Code



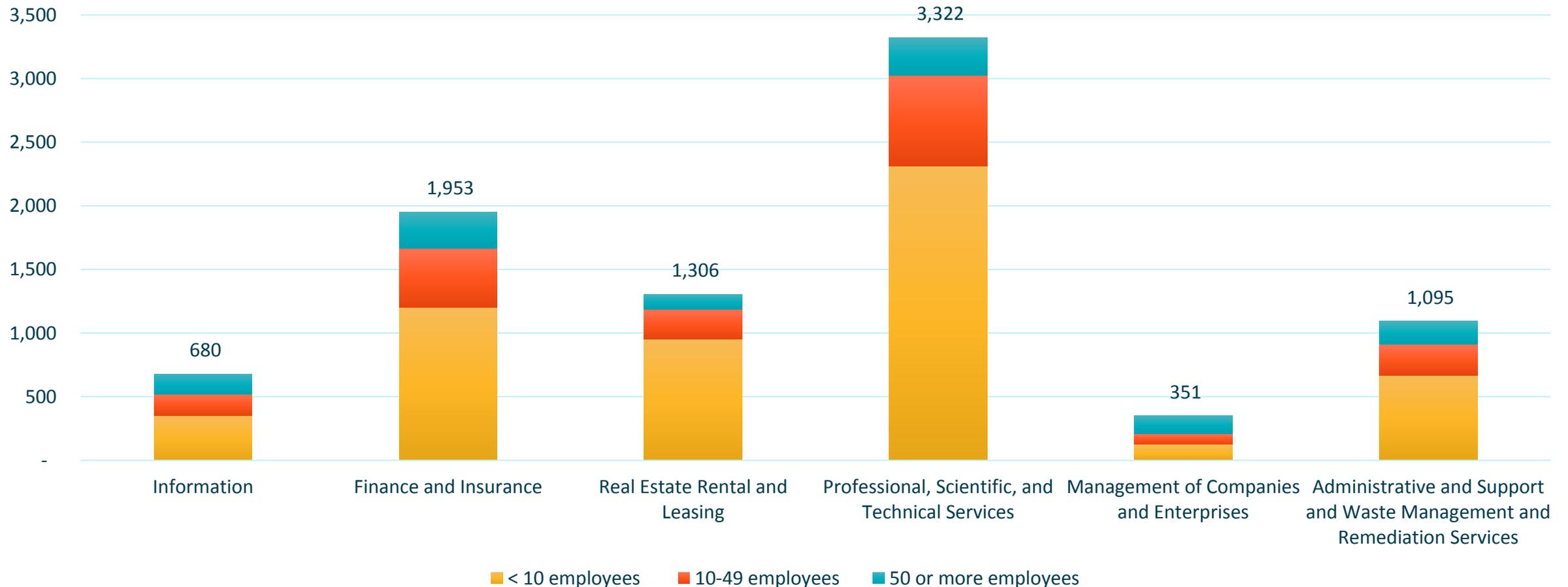
Business Services jobs are concentrated in Downtown, Back Bay, and the South Boston Waterfront.

22% of finance and insurance jobs and 19% of professional, scientific, and technical services jobs are located in zip code 02110 (the Financial District of Downtown).

The South Boston Waterfront and Back Bay each house 17% of information jobs.

- Professional, scientific, and technical services have 3,300 establishments in Boston, but 70% of them have less than 10 employees.
- There are only 350 company management establishments in Boston, but 41% have 50 or more employees.

Business Services Establishments by Number of Employees, 2015



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EDUCATION AND

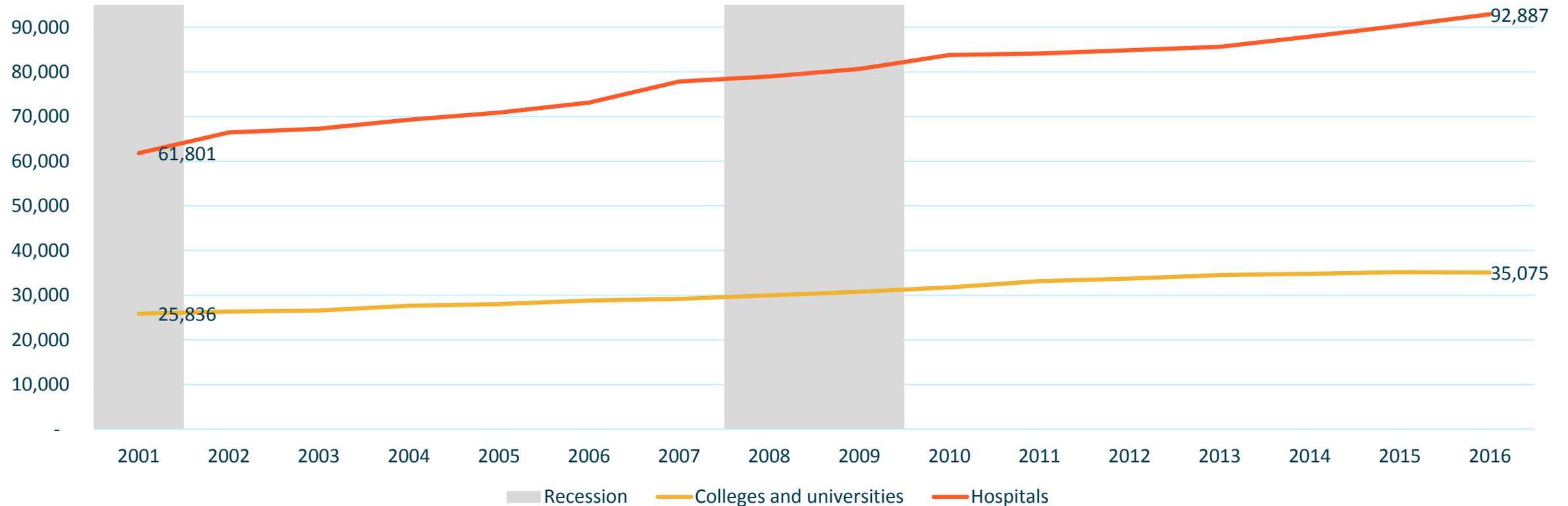
HEALTHCARE AND SOCIAL ASSISTANCE



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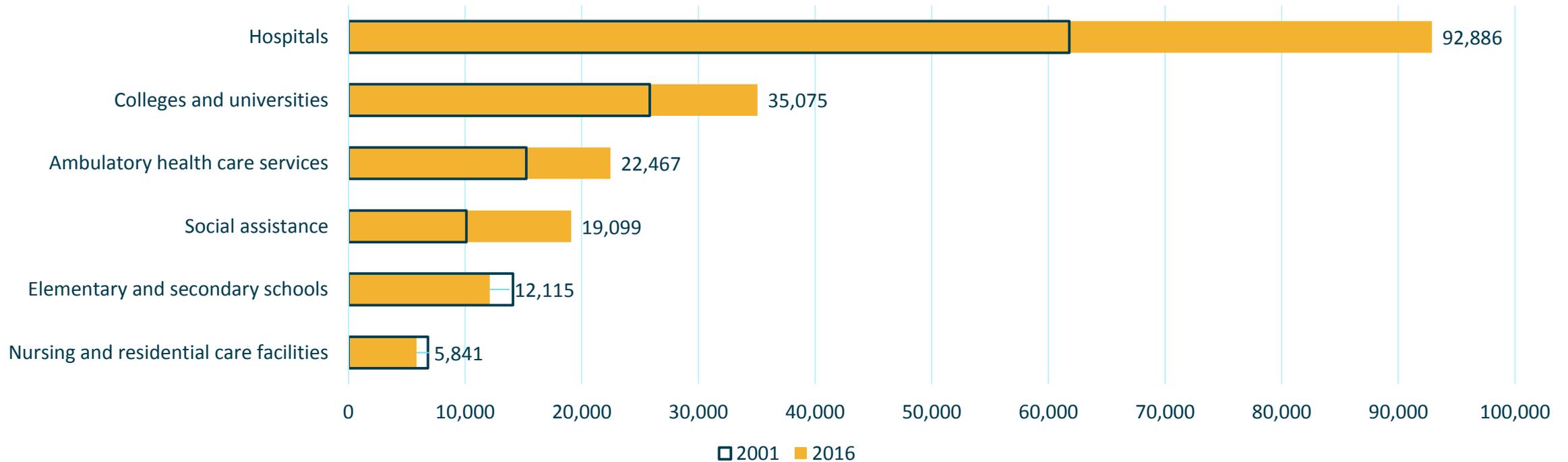
- Growth in healthcare and education employment is strong, especially for hospitals and universities.
- Employment in Boston hospitals has increased by 50% since 2001.
- College and university employment has increased by 36% over the same time period.

Payroll Employment in Universities and Hospitals



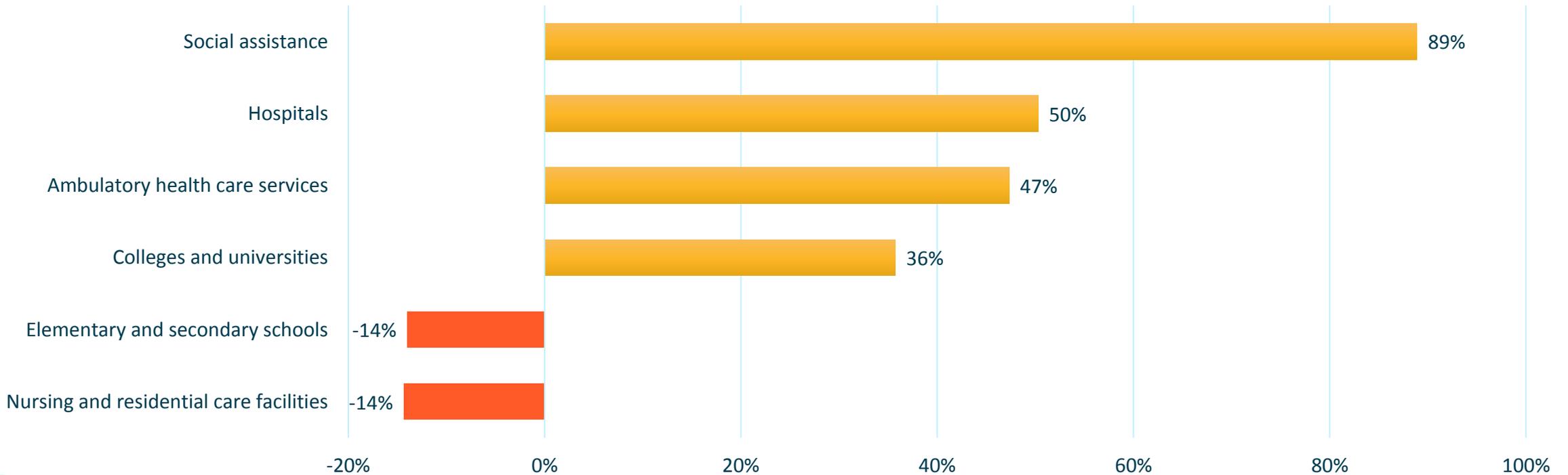
- Almost 93,000 people work in Boston hospitals.
- As of 2017, Boston hosted 21 in-patient hospitals with a combined total of 6,021 beds.
- 35,000 people are employed by Boston colleges and universities.
- Elementary and secondary schools, including the Boston Public Schools, employ about 12,000 people.

Education and Healthcare Employment, 2001 & 2016



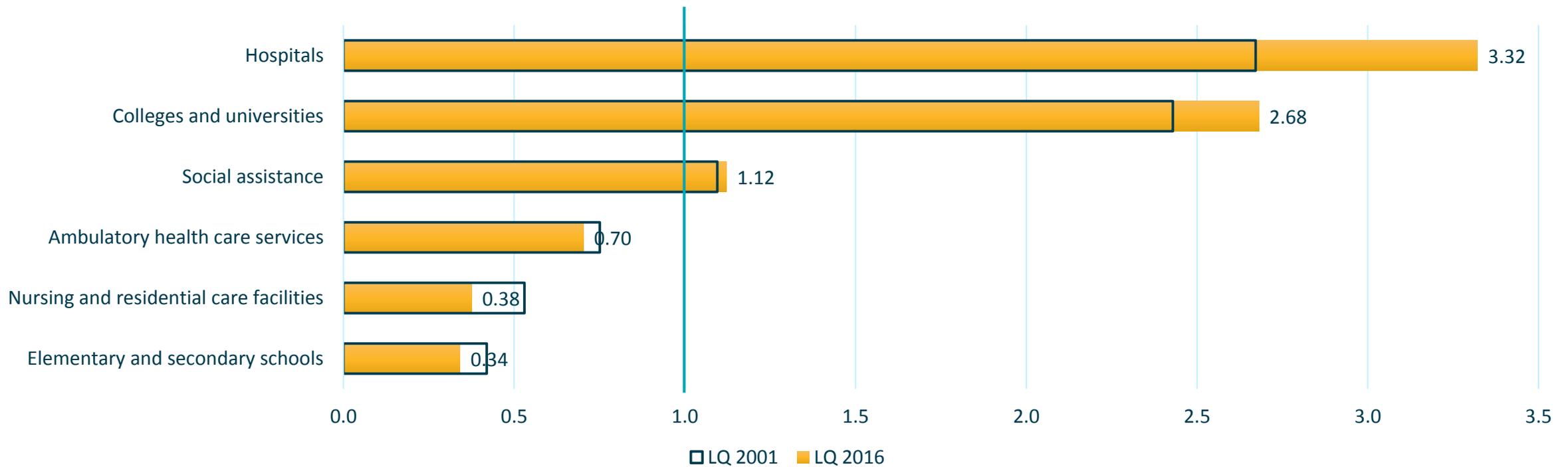
- Employment has been growing in most areas of education and healthcare employment except elementary and secondary schools and nursing and residential care facilities.
- Social assistance jobs have grown by 89% since 2001.

Growth in Education and Healthcare Employment, 2001-2016



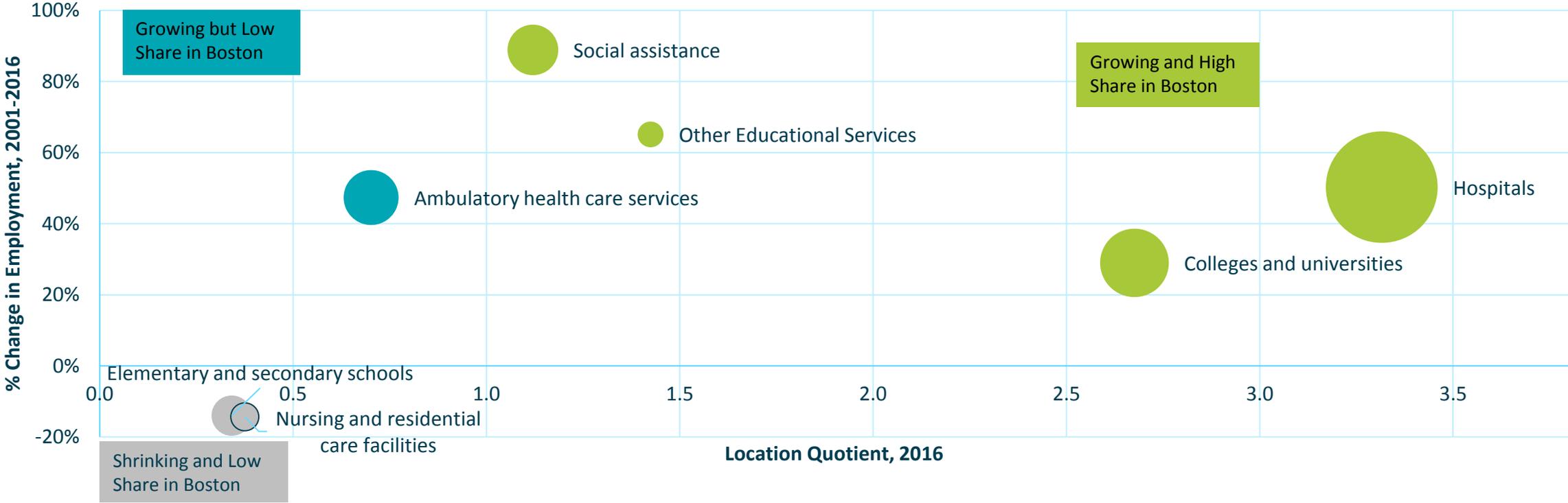
- Boston was even more specialized in hospital and college/university employment in 2016 than in 2001.
- In 2016, hospitals and colleges/universities made up 3.3 times and 2.7 times the share of Boston's employment as the nation as a whole.
- In contrast, elementary and secondary schools make up a much smaller share of Boston employment than the nation's.

Education & Health Care Location Quotients, 2001 & 2016



Hospitals, colleges and universities, and social assistance organizations have growing employment and growing specialization in Boston.

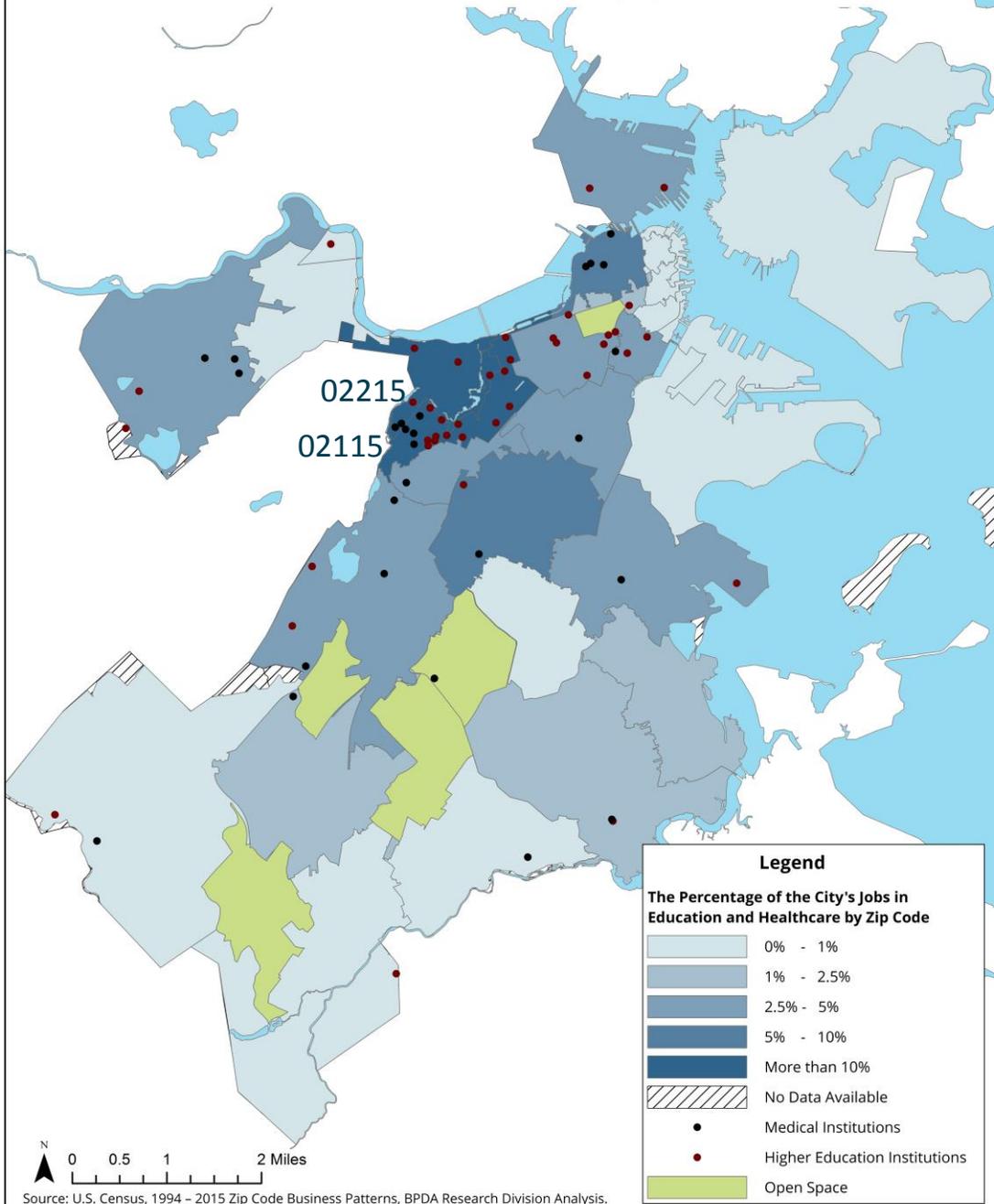
Education and Healthcare Payroll Employment



Bubble size represents jobs in 2016.

Source: Bureau of Labor Statistics (BLS), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis

Boston's Higher Education and Medical Institutions and the Percentage of the City's Jobs in Education and Healthcare by Zip Code



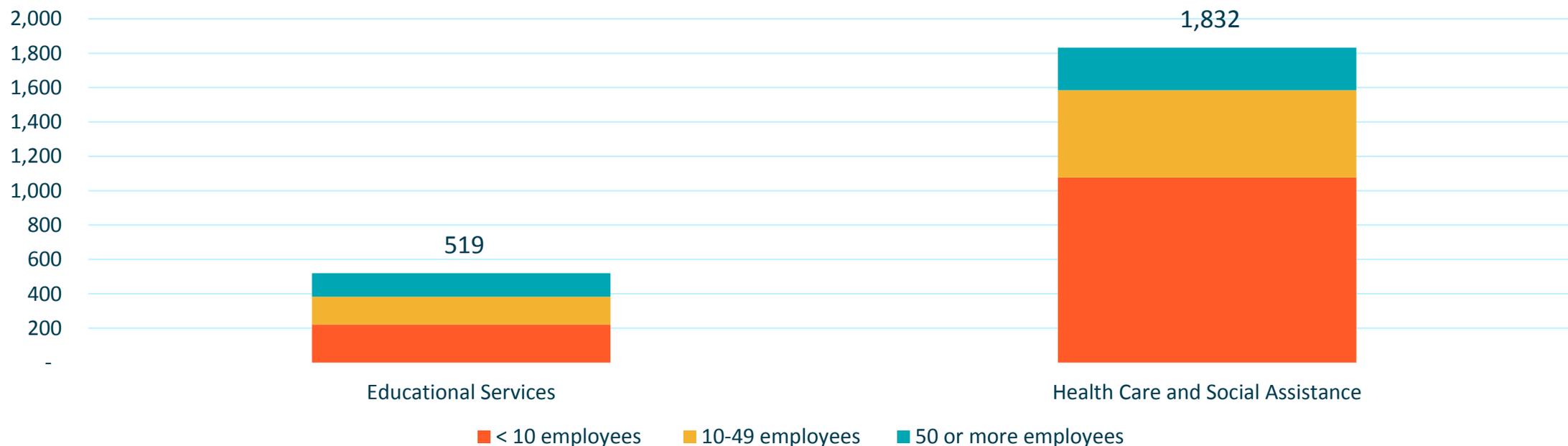
Zip code 02115 has more than 30% of the health care jobs in the city. Longwood is home to Boston Children's Hospital, Dana-Farber Cancer Institute, Beth Israel Deaconess Medical Center, Joslin Diabetes Center, Harvard Medical School, Harvard School of Public Health and Brigham and Women's Hospital.

02115 is also home to 16% of the education jobs in Boston with Northeastern University, Simmons College, Emmanuel College, Massachusetts College of Pharmacy, Massachusetts College of Art and Design, and Harvard Medical School.

Neighboring zip code 02215 houses 23% of the education jobs in Boston, mostly at Boston University.

- Education and Healthcare are dominated by large establishments with many employees.
- MGH, Brigham and Women’s Hospital, Boston Children’s Hospital, Beth Israel Deaconess, Dana Farber, Boston Medical Center, Tufts Medical Center, and the VA Hospitals are the largest healthcare employers.
- Boston Public Schools, Boston University, Harvard, Northeastern, UMass Boston, and Boston College are the largest education employers.

Education and Healthcare Establishments by Number of Employees, 2015



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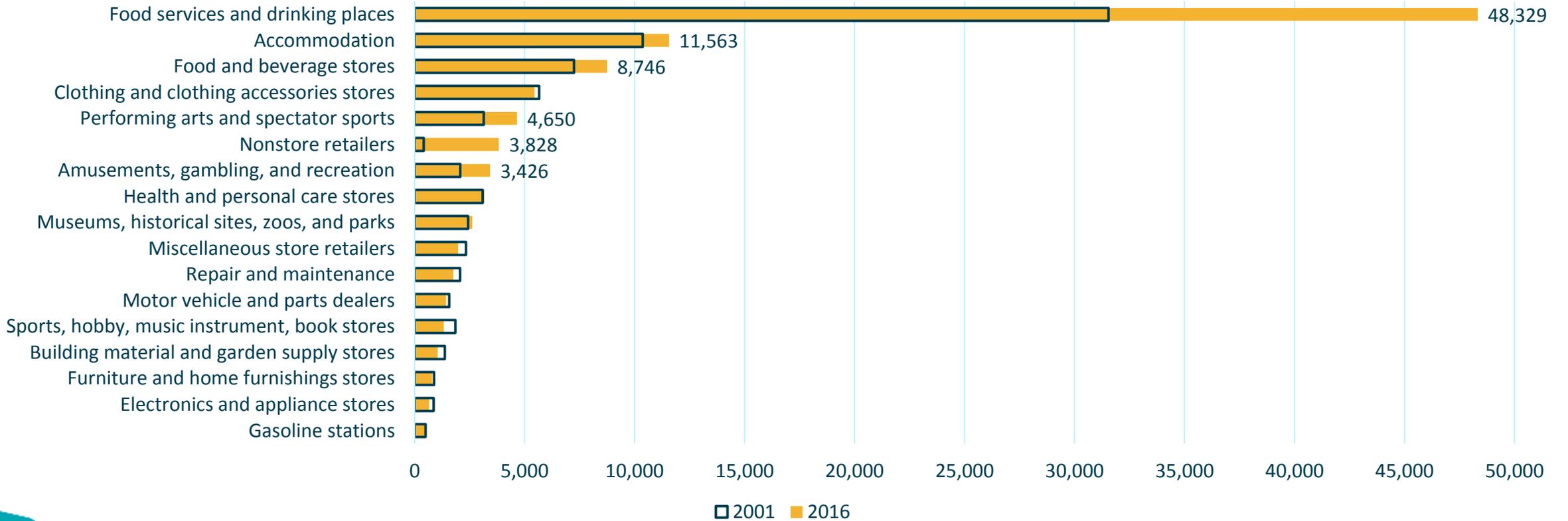
CONSUMER SERVICES



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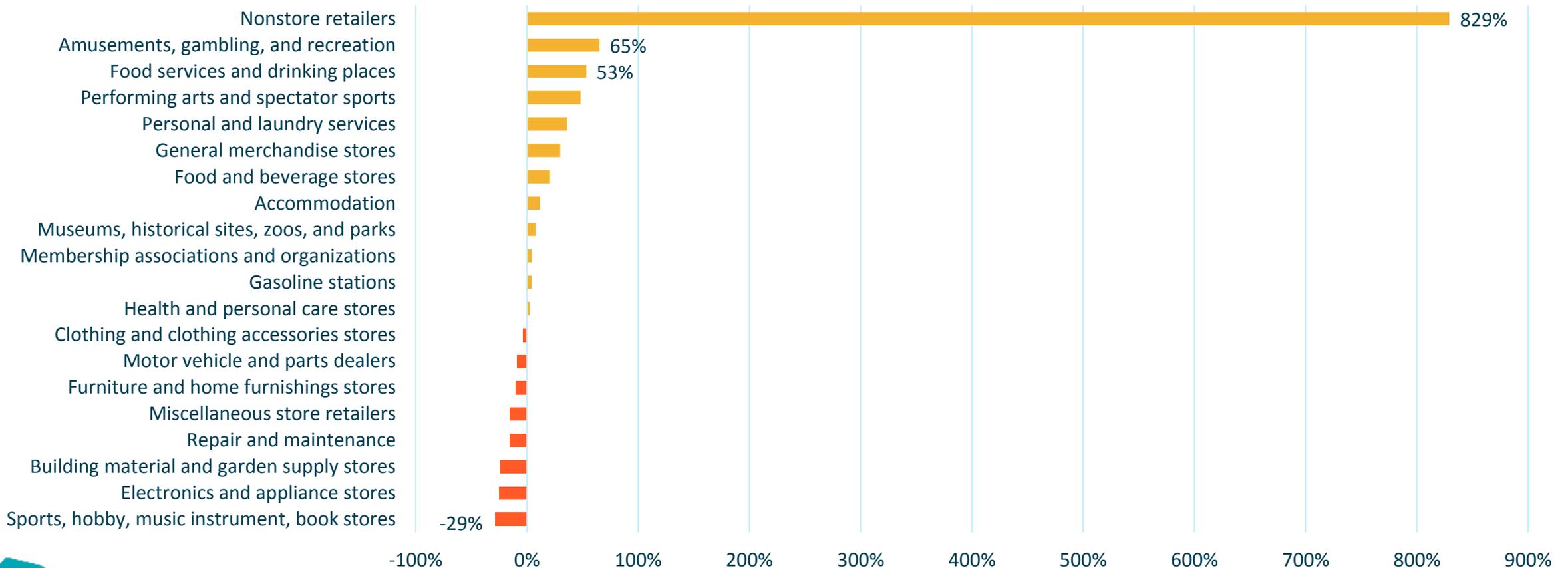
- Food services and drinking places employ by far the most people among consumer services industries – 48,000 employees compared to 31,500 in 2001.
- Hotel accommodations employ 11,500 people.
- Grocery stores employ 8,700 people.

Consumer Services Employment, 2001 & 2016



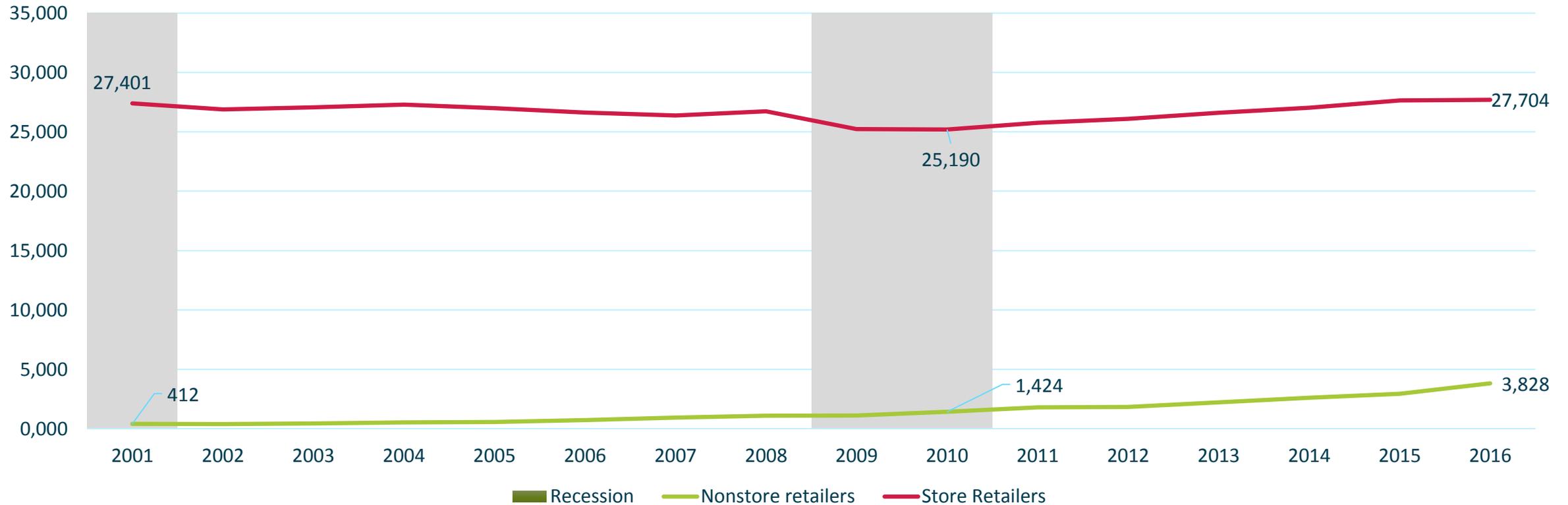
- Employment by non-store retailers, such as internet shopping, grew by 829% since 2001, up to 3,800 workers.
- Services and recreational activities have generally added employment, while traditional retailers of durable goods have cut jobs.
- Sports, hobby, and book stores cut employment by 29% since 2001.

Consumer Services Payroll Employment Growth Rate, 2001-2016



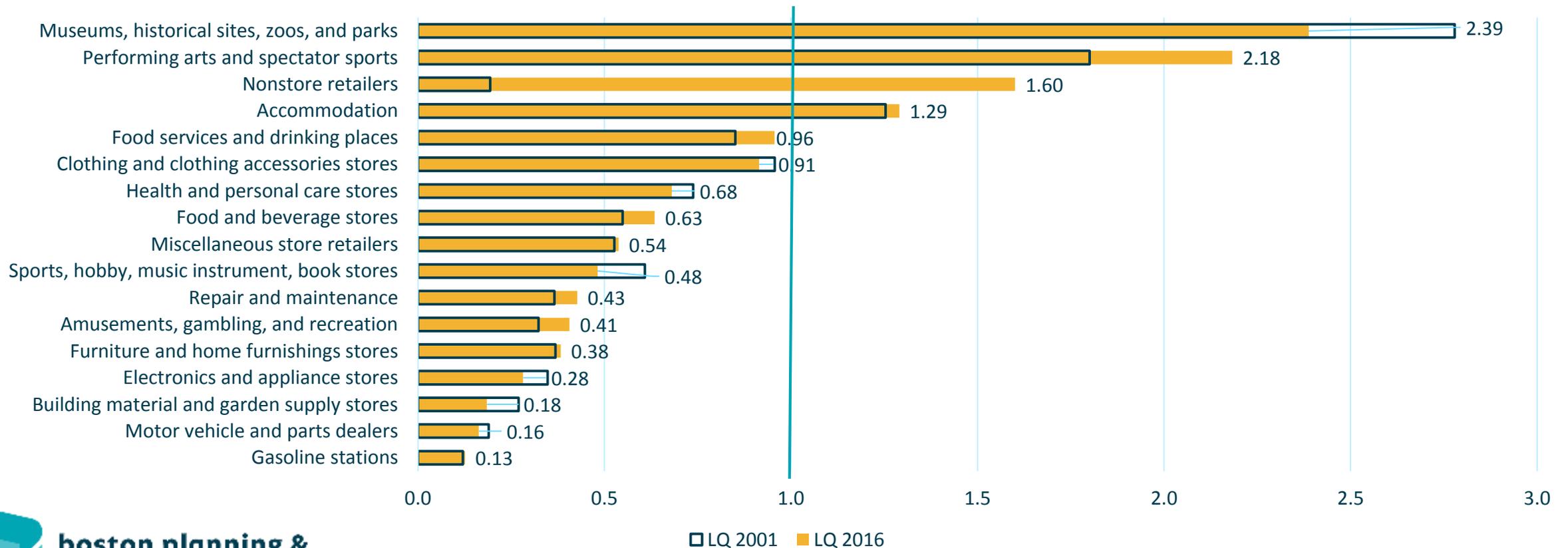
- Store retail employment has been stagnant since 2001 at approximately 27,000 people.
- Non-store retail employment has grown steadily in Boston.
- Wayfair, the internet retailer founded in 2011, employs 3,500 people in Boston and plans to hire 10,000 more.

Retail Payroll Employment, 2001-2024

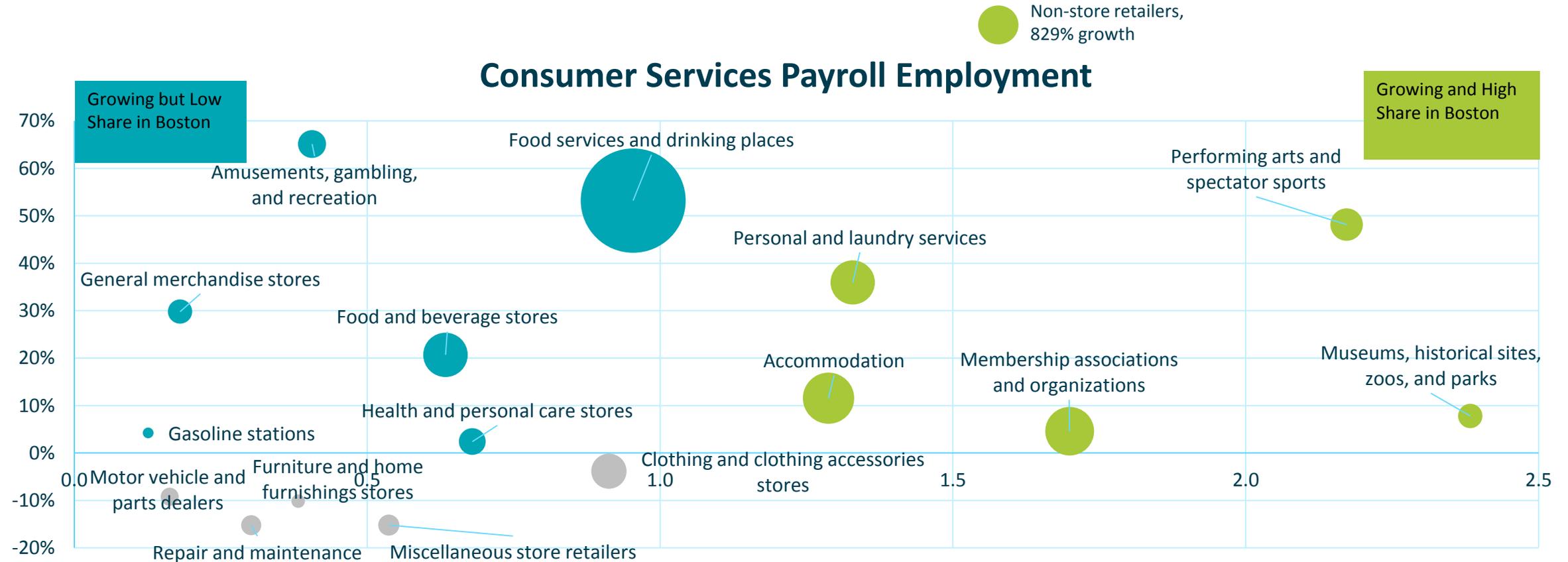


- Boston's share of employment in leisure activities such as museums, parks, performing arts, and spectator sports is more than double the national average.
- Non-store retail employment grew by 829% in Boston since 2001, but only 13% in the U.S. as a whole, making it a higher share of Boston's employment.
- Food Services are growing and the largest type of consumer services in Boston, but still make up a lower share of Boston's employment than the nation's.

Consumer Services Location Quotients, 2001-2016

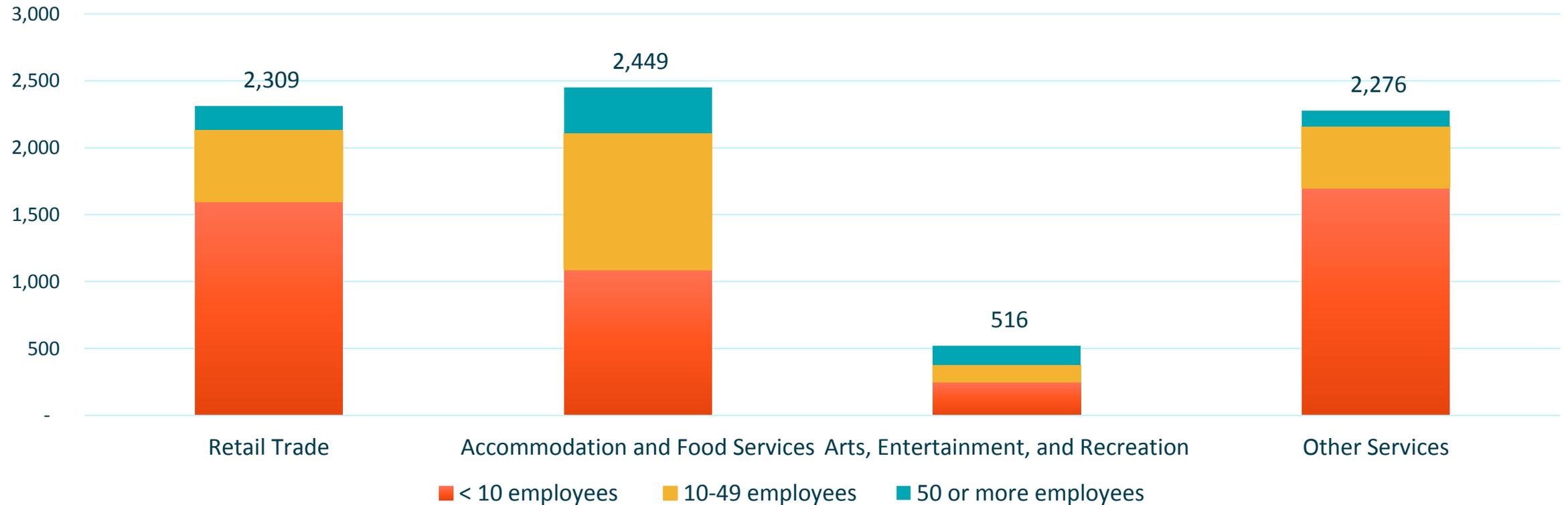


- Person- and place-based services such as restaurants, hotels, recreational activities, tourist destinations, and personal services have added jobs since 2001.
- Performing arts and spectator sports, non-store retailers, and accommodations have growing employment and growing specialization in Boston.



- Since 2001, retail establishments have been steady at 2,300, 69% having less than 10 employees.
- Accommodation and food services establishments have grown by 28% since 2001. Hotel room supply has grown from 14,000 in 2000 to 19,816 in 2016.
- There are only 516 arts, entertainment, and recreation establishments in Boston, but 27% have 50 or more employees.

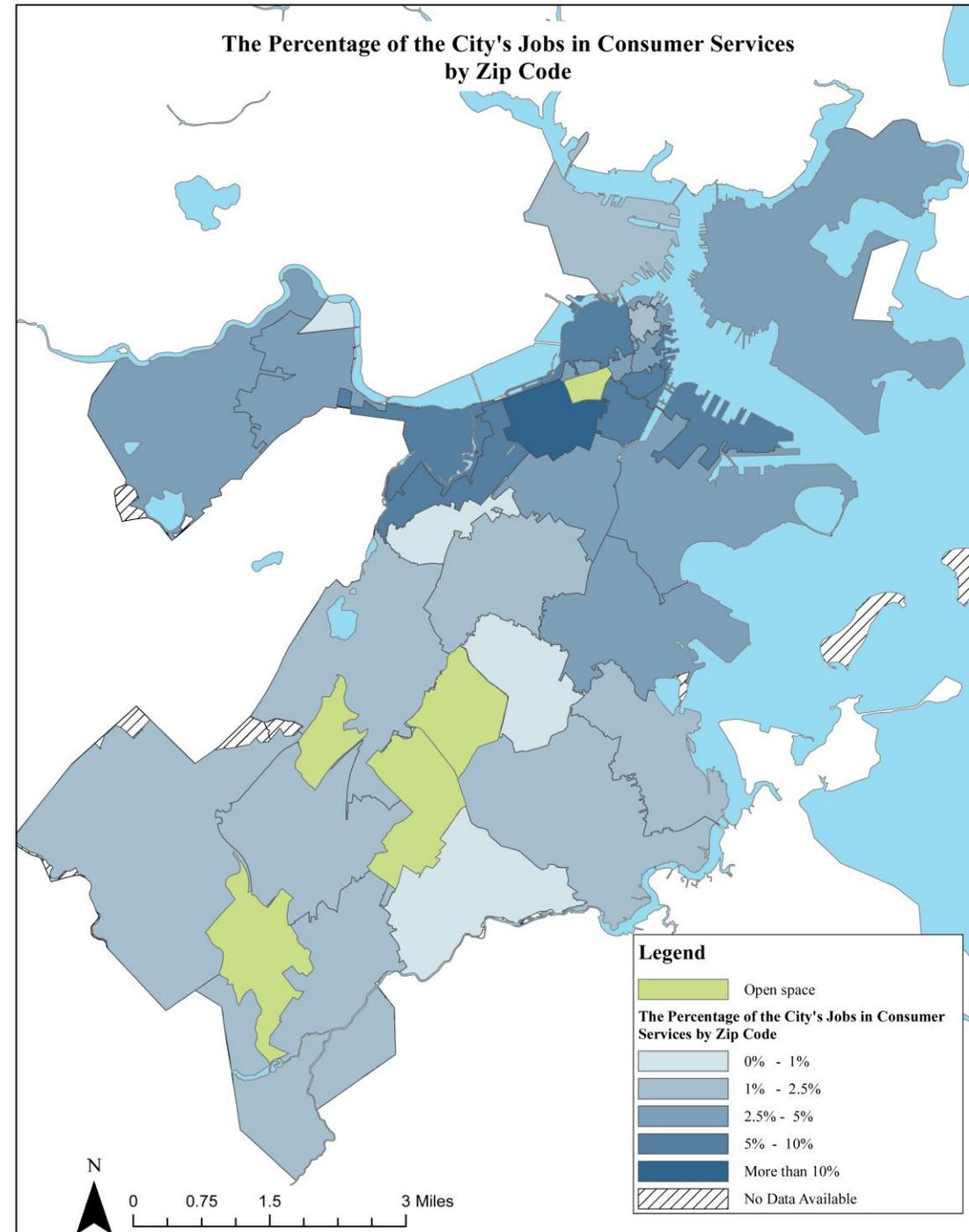
Consumer Services Establishments by Number of Employees, 2015



Accommodation and Food Service employment is concentrated in Back Bay. Large hotels in Back Bay include the Fairmount Copley Plaza.

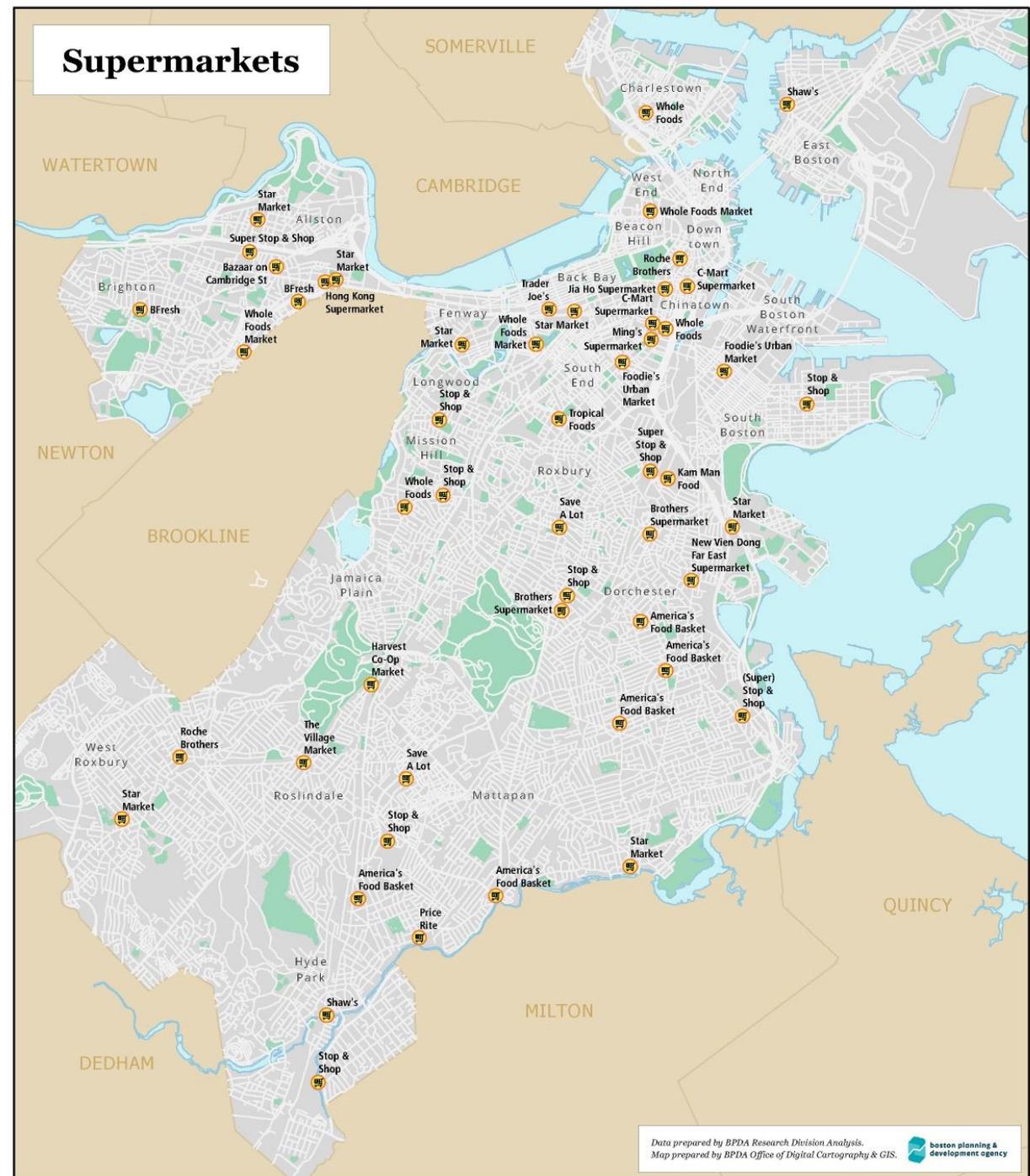
Retail employment is spread throughout the city with a concentration in Back Bay, with its traditional shopping area on Newbury Street and the headquarters of internet retailer Wayfair in Copley place.

Arts, Entertainment, and Recreation employment is concentrated in Fenway/Kenmore, Back Bay and the West End. Large employers include the Museum of Fine Arts, Fenway Park, and the Museum of Science.



Food and Beverage Stores are the largest form of retail employment with 8,746 employees in 2016, up 21% from 2001.

Boston is home to 56 supermarkets and approximately 311 convenience stores. The map at right shows the supermarkets in Boston.



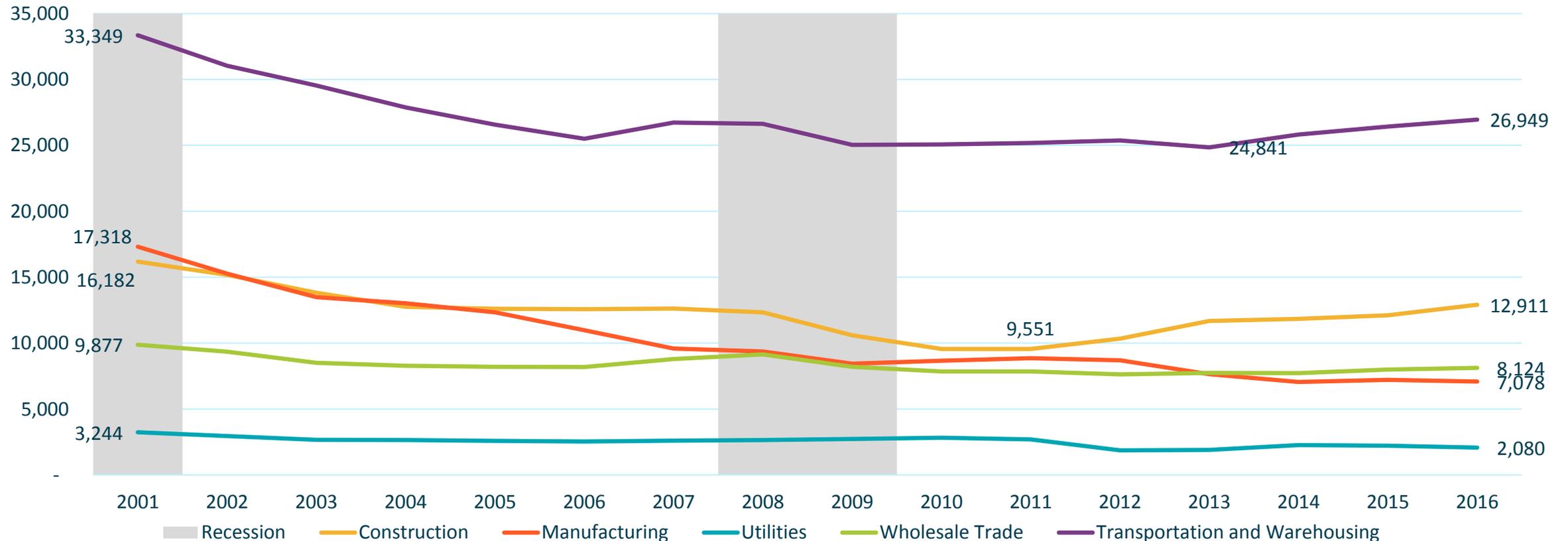
Source: InfoUSA, Bureau of Labor Statistics (BLS), Massachusetts Executive Office of Labor and Workforce Development (EOLWD), BPDA Research Division Analysis; map prepared by BPDA Office of Digital Cartography & GIS

06.

PRODUCTION AND TRANSPORTATION

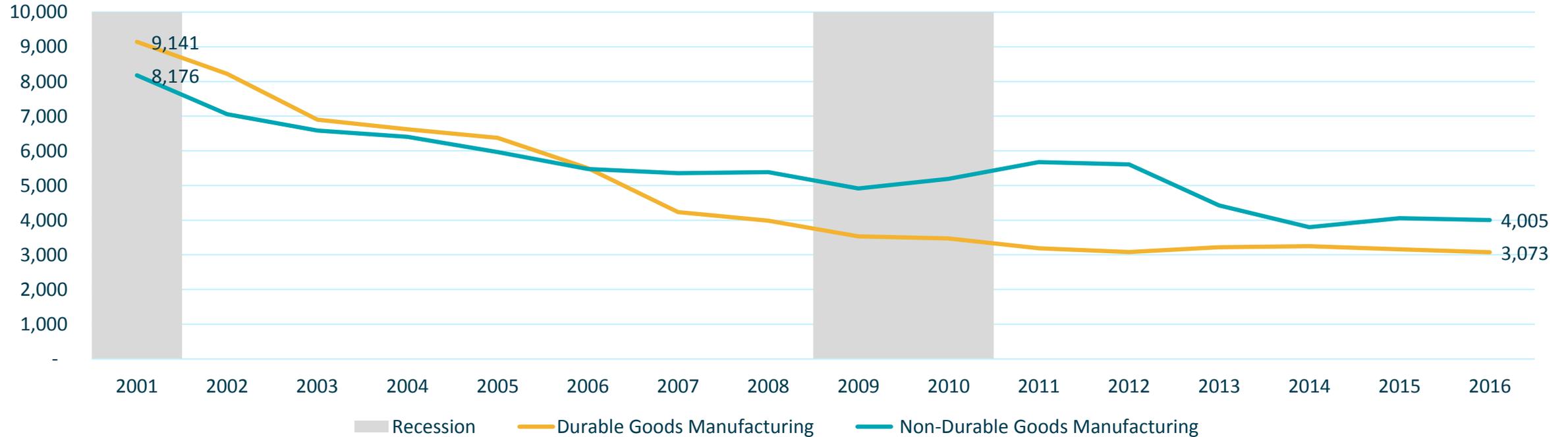
- Production and transportation employment has declined across the board since 2001.
- Transportation and warehousing employed 33,000 people in 2001 and 27,000 in 2016.
- Construction employment declined by 41% from 2001 to a low point in 2011. It rebounded somewhat through 2016.

Production and Transportation Payroll Employment

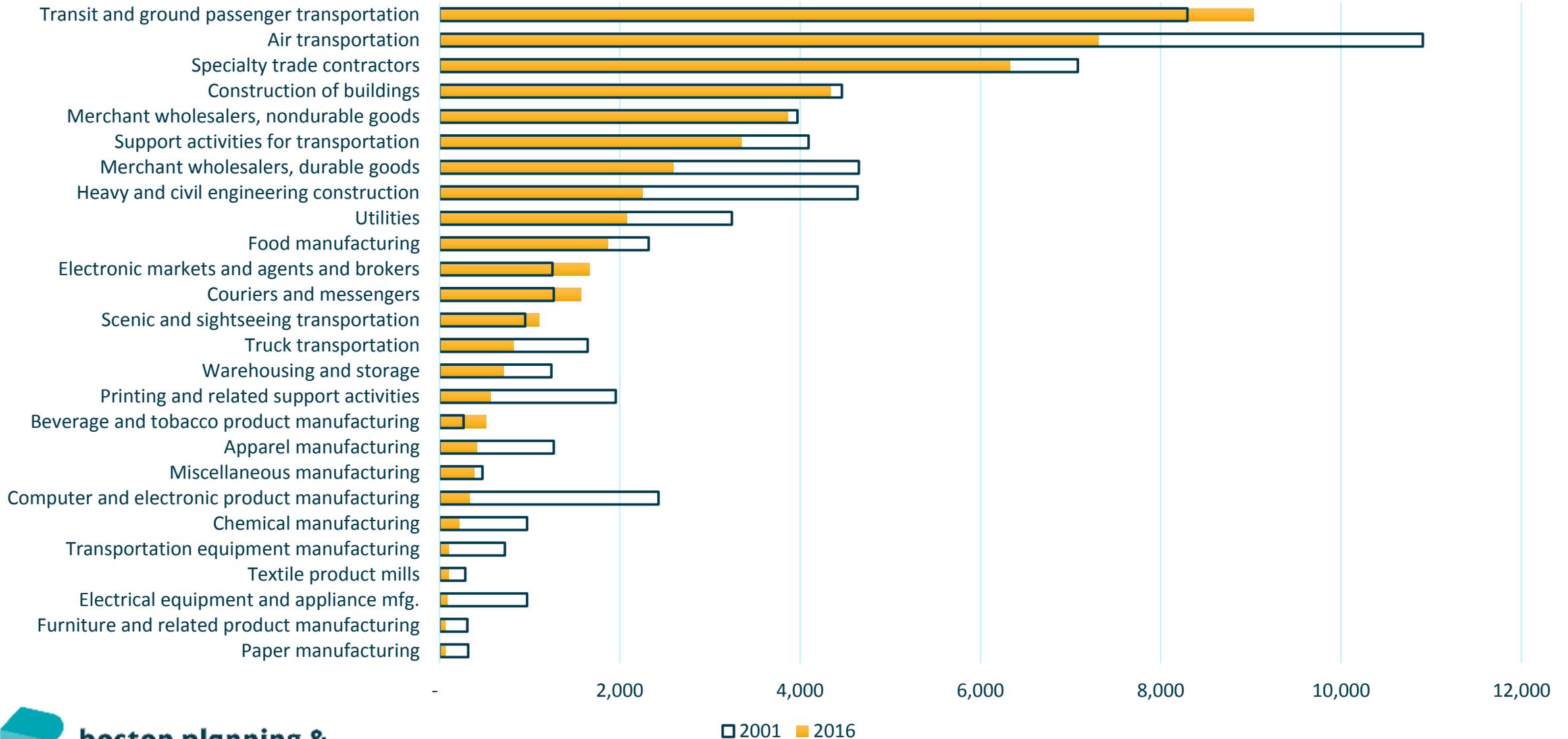


- Manufacturing employment in Boston fell by 59% from 2001 to 2016. Durable goods manufacturing declined by 66%.
- Manufacturing of non-durable goods such as food and printed paper declined more slowly and now makes up 57% of manufacturing in Boston. Food manufacturing such as baking and seafood processing made up 26% of manufacturing in Boston in 2016.
- The decline in durable goods manufacturing has correlated with a 44% decline in durable goods wholesalers.
- Durable goods manufacturing is projected to decline by an additional 33% by 2024 while non-durable goods manufacturing employment remains relatively stable.

Manufacturing Payroll Employment

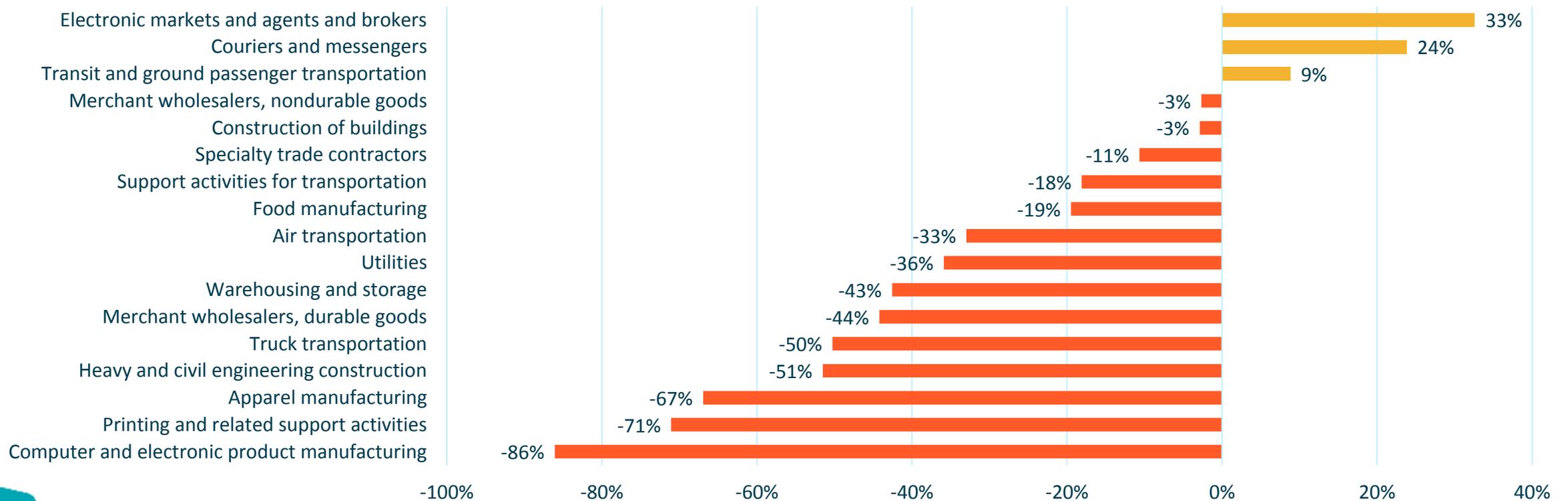


Production & Transportation Employment, 2001 & 2016



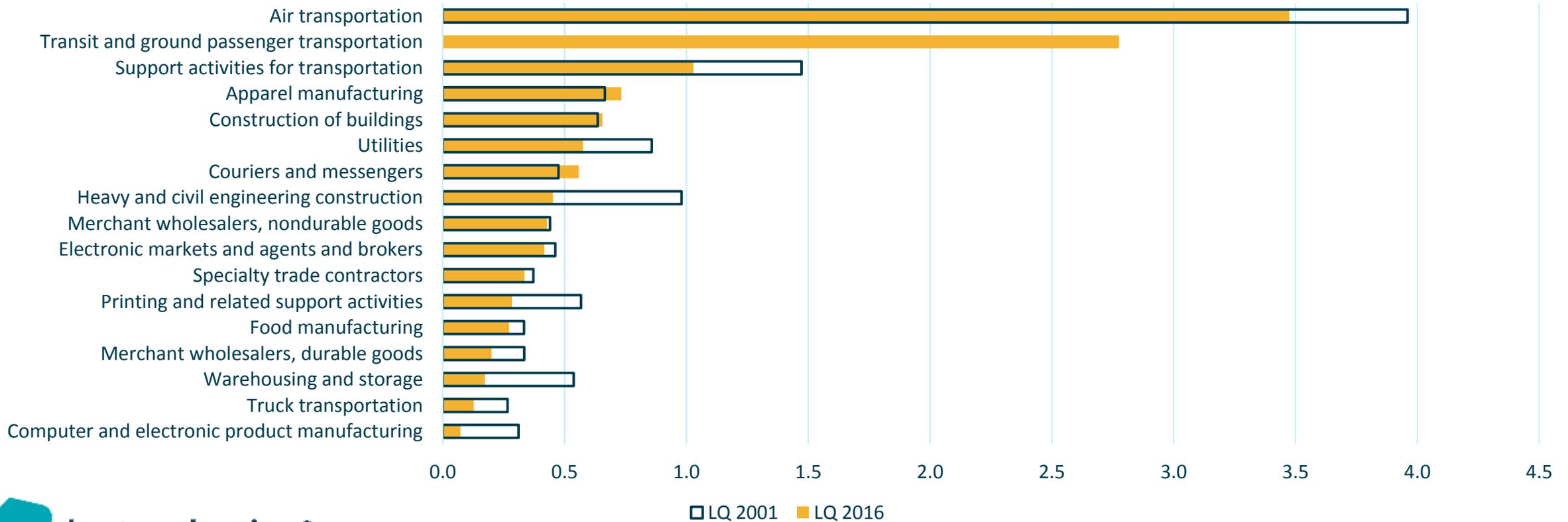
- The only production and transportation sectors that added employment from 2001 to 2016 were electronic wholesale markets, couriers and messengers, and transit and ground passenger transportation.
- The growth in employment in couriers and messengers may be related to the growth in on-line retailing.
- Computer and electronics manufacturing, printing, apparel manufacturing, and heavy construction lost more than half of their jobs over this time period.

Growth in Production and Transportation Employment, 2001-2016



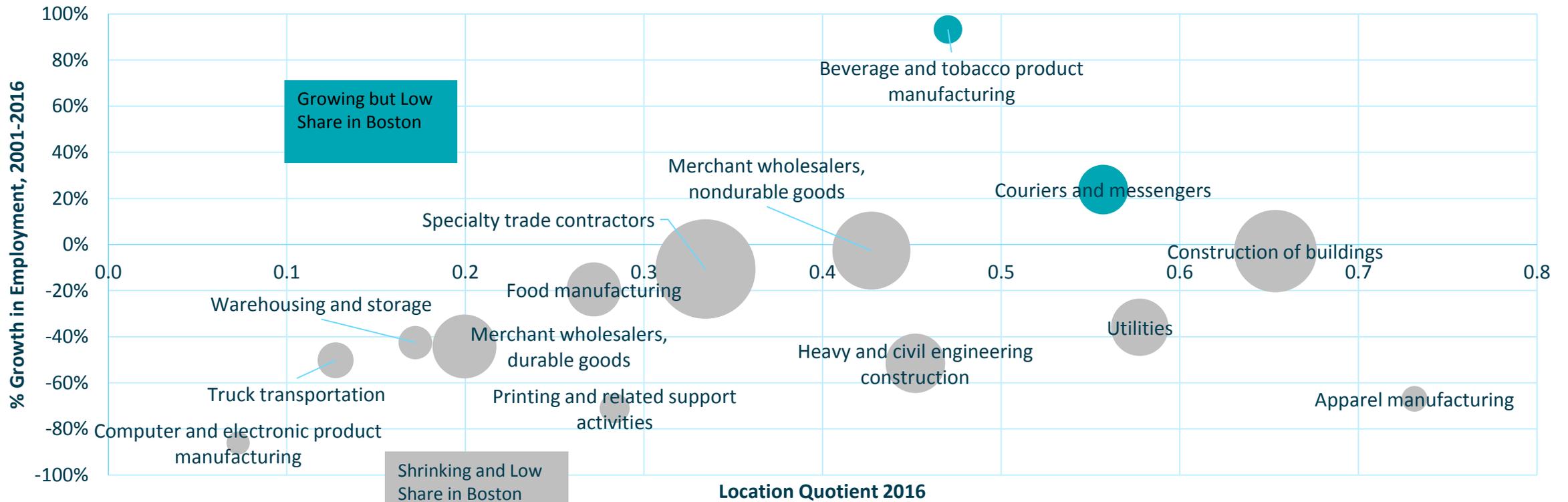
- Boston has more air transportation and transit employment relative to the nation as a whole, but less manufacturing, construction, wholesale trade, and warehousing.
- Manufacturing employment fell throughout the country over the past 15 years, from 13% to 9% of U.S. employment.
- Manufacturing fell even faster in Boston, from 3% to 1% of city employment.
- Air transportation employment fell in the U.S. from 0.5% to 0.3% of national employment. Boston's air transportation employment is higher – 1% of city jobs – but fell more significantly, from 2% in 2001.

Production and Transportation Location Quotients, 2001 & 2016



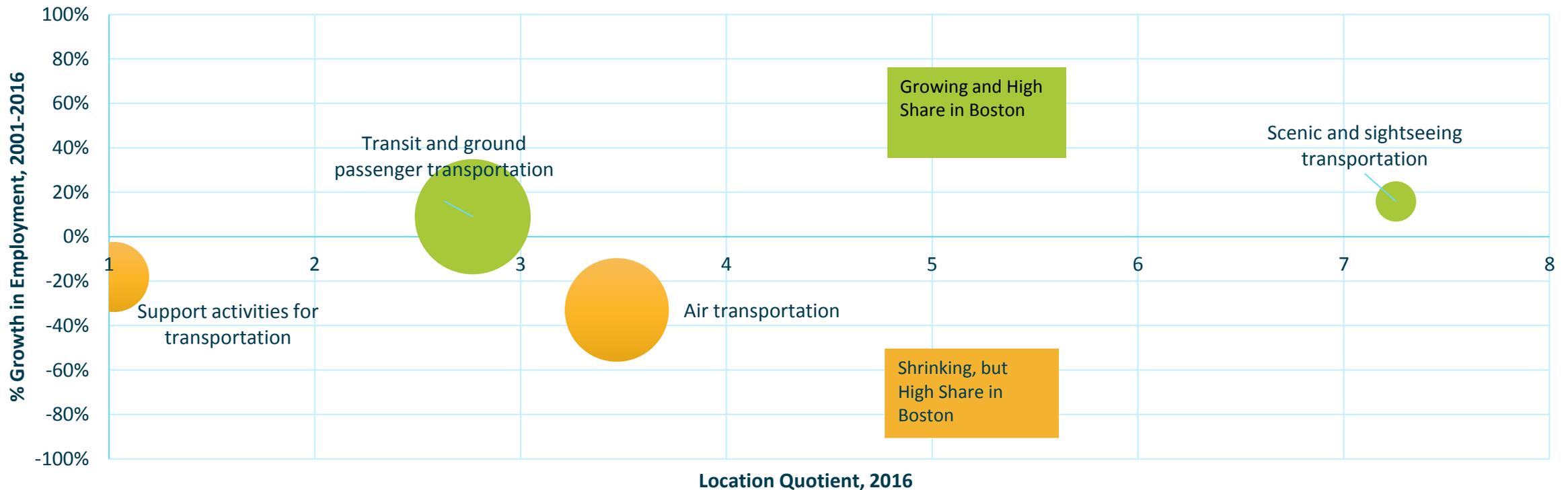
- Most types of production and transportation employment are both declining and underrepresented in Boston.
- All types of manufacturing employment have declined since 2001 except beverages and tobacco manufacturing such as breweries (2016 employment – 516). Boston has a lower share of employment in all types of manufacturing than the nation as a whole, including high tech manufacturing such as computers and electronics.

Production and Transportation Employment – Low Share in Boston

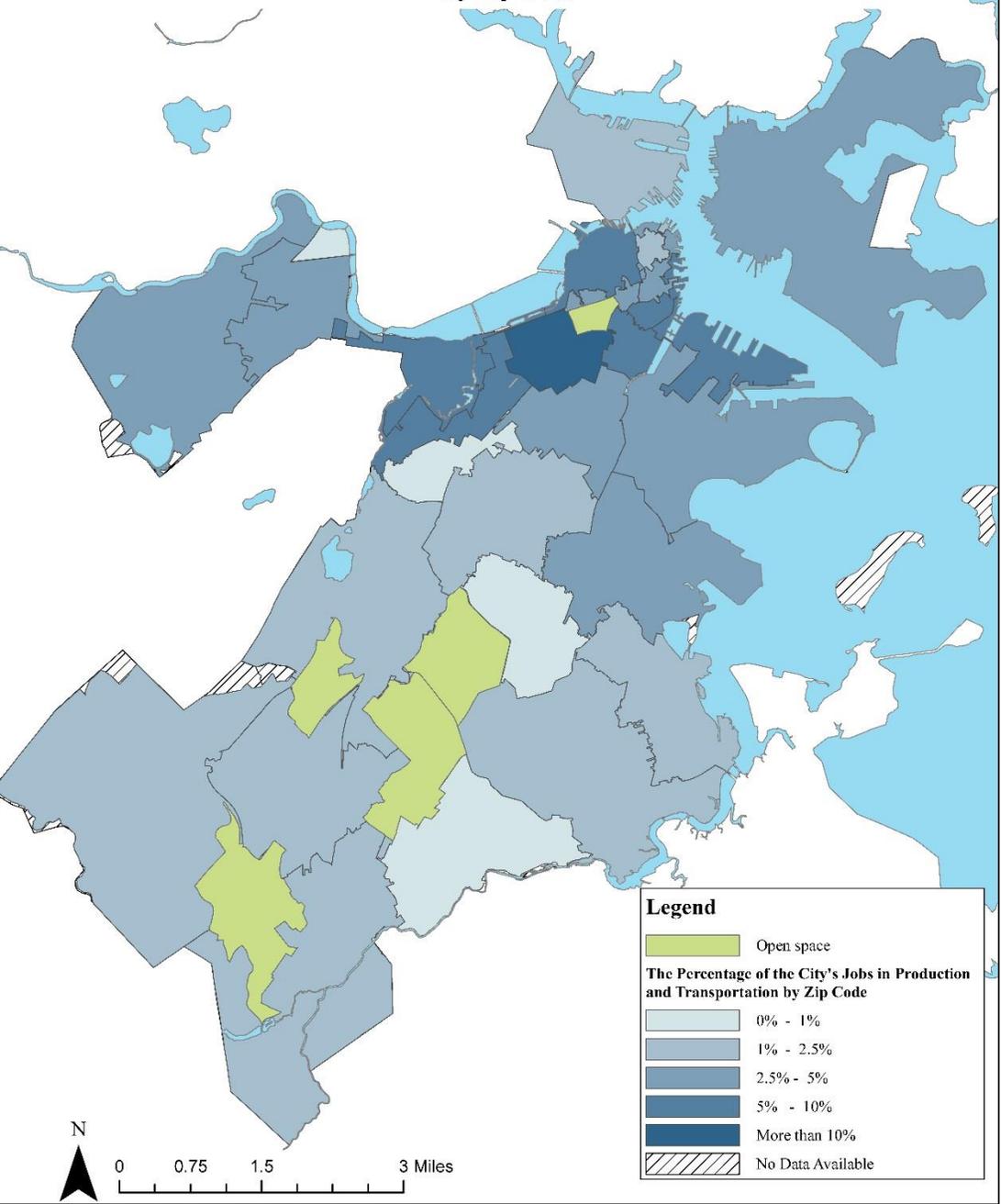


- A handful of production and transportation industries are overrepresented in Boston:
- Sightseeing transportation is a growing Boston specialty.
- Transit and ground passenger transportation employs 9,000 people in Boston.
- Despite increasing flights out of Logan Airport, air transportation employment has declined by a third since 2001.

Production and Transportation Employment – High Share in Boston



The Percentage of the City's Jobs in Production and Transportation by Zip Code



45% of manufacturing employment in Boston is concentrated in South Boston and the South Boston Waterfront.

43% of transportation employment is centered on East Boston and Logan Airport, but 29% is allocated to Back Bay with the MBTA administrative offices.

U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2015)

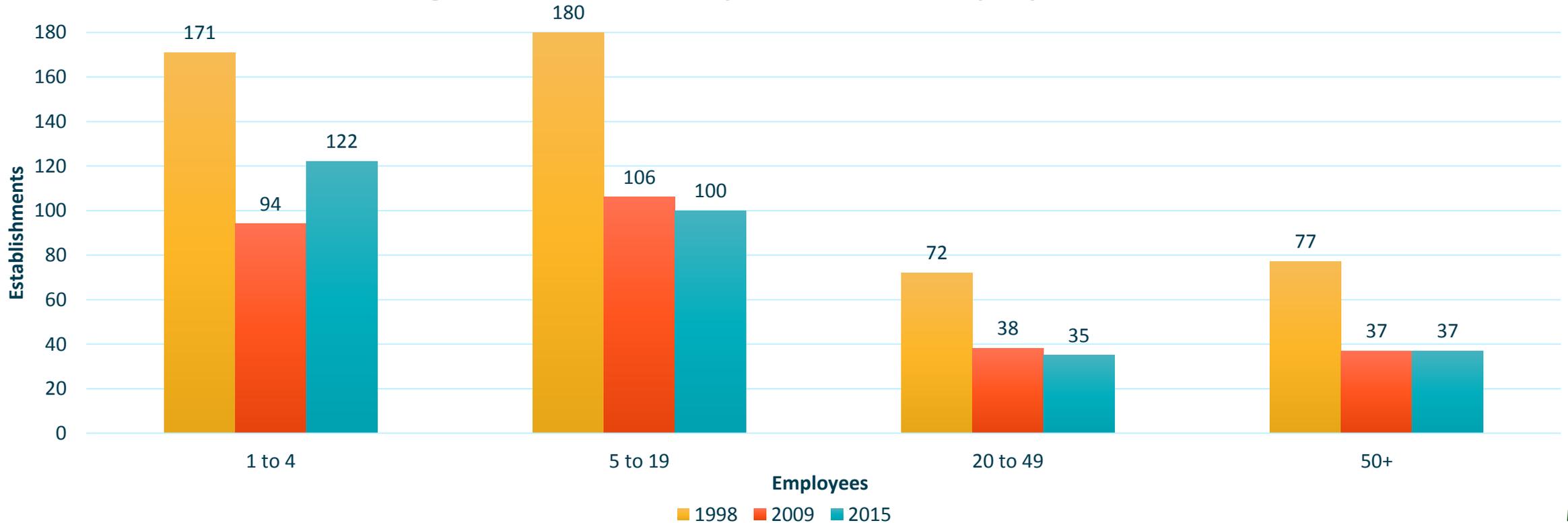
The construction industry has the most establishments (872), but most of them have only a few employees. There are only 324 utilities establishments, but more than half of the establishments have 50 or more employees.

Production and Transportation Establishments by Number of Employees, 2015



- Manufacturing establishments declined by 45% from 500 in 1998 to 275 during the Recession of 2009. From 2010 to 2015, the number of manufacturing establishments increased by 6% to 294.
- Recent growth in manufacturing since 2009 was primarily in small establishments with less than five employees which now make up 41% of manufacturing establishments.
- 10% of manufacturing establishments are commercial printers and 9% are retail bakeries.

Manufacturing Establishments by Number of Employees, 1998, 2009, & 2015



07.

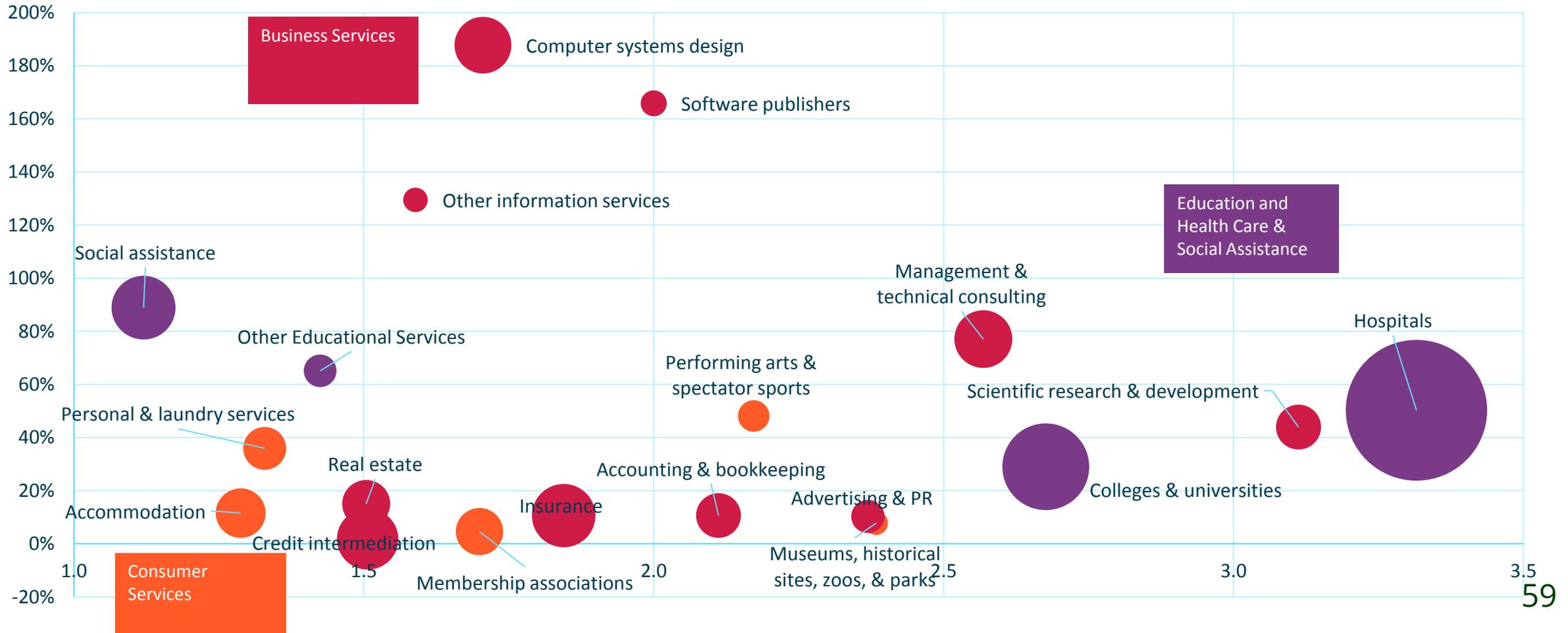
SUMMARY



**boston planning &
development agency**

- Industries that are growing and high share in Boston are primarily services: especially education, health care, and social assistance, highly-skilled business services, and leisure and hospitality consumer services.
- Hospitals, colleges and universities, social assistance organizations, scientific R&D, advertising and PR, computer systems design, software publishing, performing arts and spectator sports, non-store retailers, and accommodations have growing employment and growing specialization in Boston.

Growing and High Share Industries in Boston



- Industries in Boston that are shrinking and low share in Boston are mostly production and transportation industries such as manufacturing, wholesale trade, construction, and utilities.
- In-store retailers of goods such as clothes, books, and electronics are also declining in employment.

Shrinking, and Low Share in Boston

