Trends in Somerville:

Economic Trends Technical Report

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I. ECONOMIC CONCEPTS AND DATA ISSUES

Data can help tell an interesting story; it can also be baffling or even misleading. Often times knowing how a given number or data representation is created is as important as the stated value. This report will focus on a core set of economic concepts such as employment, wages, and establishments. It will also use tools of calculation and representation to make the trends or meaning of the data more apparent to the audience. This section will overview the most commonly used instances of these two categories.

Economic Concepts

Measures of Economic Activity, There are a number of popular ways to measure economic activity of an area. The most traditional concepts are **establishments** (businesses), **employment** (people with jobs), **wages/income** (earnings of employees/households) and **gross product** (value of goods produced). In this report all but the last will be used to draw conclusions about trends in Somerville's economy. Gross product, which was originally conceived for measuring the wealth of countries, is more appropriate for larger geographic scales.

*Firm, Establishment, Employee, Industry Sector. I*n order to differentiate between types of economic activity the Bureau of Labor Statistics has developed a system grouping economic units along aggregations of organization and across types of goods and services. An example in Somerville is how Dunkin Donuts (a single firm) has six locations (establishments) within City limits.

Firm – any business, such as a sole proprietorship, partnership or corporation

Establishment – an operation that sells goods or services and operates from a single physical location

Employee – an individual that works under a contract of employment for a firm

Industry – the classification of economic activity by goods or services. The NAICS system contains six levels of detail with each becoming more and more specific in activity type. For example,

Partial of NAICS classification for the Construction Industry

23 Construction **(2 digit)**
- **236** Construction of Buildings **(3 digit)**
  - **2361** Residential Building Construction **(4 digit)**
    - **23611** Residential Building Construction **(5 digit)**
      - **236115** New Single-Family Housing Construction **(6 digit)**
      - **236116** New Multifamily Housing Construction **(6 digit)**
      - **236117** New Housing Operative Builders **(6 digit)**
      - **236118** Residential Remodelers **(6 digit)**
  - **2362** Nonresidential Building Construction **(4 digit)**

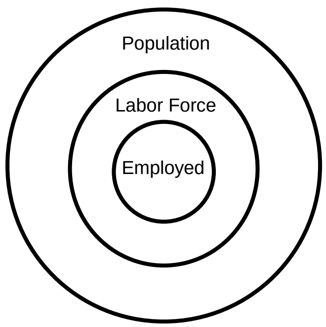
Population, Labor Force, and Employment, These three terms bridge conceptual ground between demography (population) and economy (employment) by considering what share of an economy's population is able to participate in the labor force (all people aged 18 to 64).

Population – the number of people, counted according to their primary residence, in a region

Labor force – the number of people, counted according to their primary residence, employed or seeking employment in a region

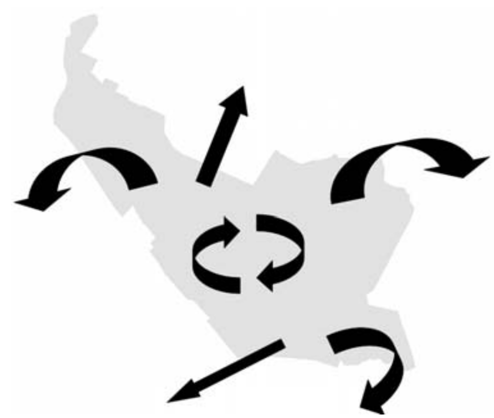
Employment – the number of people holding jobs in a region

They can be easily conceived as three concentric circles (figure below). Population includes all of the residents of an area. Labor force includes all the people of working age. Employed includes people who have jobs (not necessarily in the specified area). The unemployment rate is 1-(employed/labor force).



Employment by Residence vs. Place of Business, Employment is one of the most common measures of economic activity and the most prominent type of data used in this report. There are two primary ways that employment can be measured, from the perspective of residence or from the perspective of place of business. There are a number of institutions that collect data of each type, but in this report the CES survey (place of residence) and the QCEW survey (place of business) produced by the Bureau of Labor Statistics will be the primary source of data.

Employment by Residence



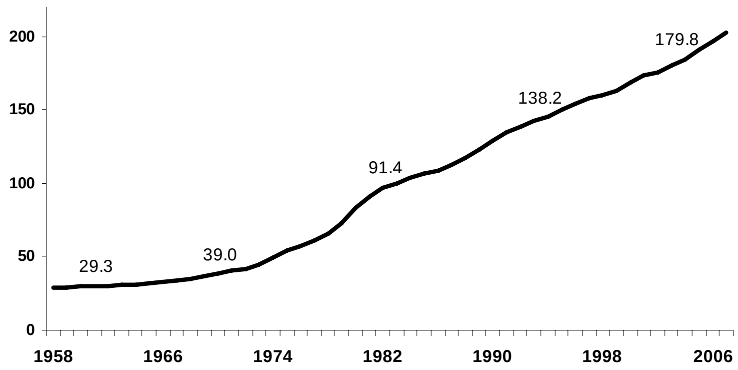
Pictorially employment by residence can be thought of as all of the people in Somerville who have jobs, but may work either in the City (circular arrows) or may work outside of the City.

Employment by Business

Compared with the previous definition of employment, employment by business can be thought of as all jobs that are located at businesses within the City border that are held by Somerville residence (circular arrows) or by people living in other cities and towns (arrows starting outside City borders). Typically employment by business is not used to determine unemployment rates and is not used in reference to population or labor force concepts.

Inflation, CPI and Real Income, In order to compare levels of activity across time (and geography) the Bureau of Labor Statistics offers a series of indices to convert values to a uniform measure. The most popular of these is the Consumer Price Index (CPI) which is often used to illustrate the effects of inflation (how the value of currency changes over time). At times in this report measures of income and wages are converted into "real" dollars in order to show a consistent comparison of how compensation or purchasing-power changes over time.

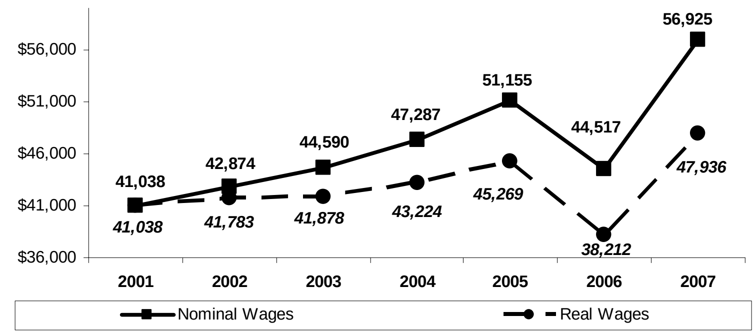
CPI, U.S. All Cities 1958 - 2007



Source: BLS

The basic interpretation of the above graphic is that it would require $179.80 in 2003 to buy $29.30 of equivalent goods in 1959. In practical application, the CPI is used to measure the effectiveness of Federal Reserve Bank monetary policy and to index collective bargaining agreements for over 2 million workers in the U.S. Using this index to compare compensation over time helps give a more accurate sense as to whether gains in (nominal) wages or income keep pace with inflation. That is, whether there are gains in *real* terms.

Nominal vs. Real Wages



Source: BLS

Labor Cost, Wage, and Income, These four concepts are measures of pecuniary dispensations occurring between firms, employees and governments.

Labor costs – this includes wages paid to employees as well as related benefits and taxes paid by the employer (e.g. unemployment insurance taxes)

Wages – monetary compensation paid to an employee

Income – wages earned by an individual that can then be broken down to **disposable income** (less taxes), **discretionary income** (less food and shelter) and **real income** (adjusted for inflation)

Data Issues

Employment Definitions

Even within the dichotomy of employment by residence or employment by business, there are definitional differences in how employment can be measured depending on which survey is used.

For employment by business data, which includes all employment broken out by NAICS industries, the definition is:

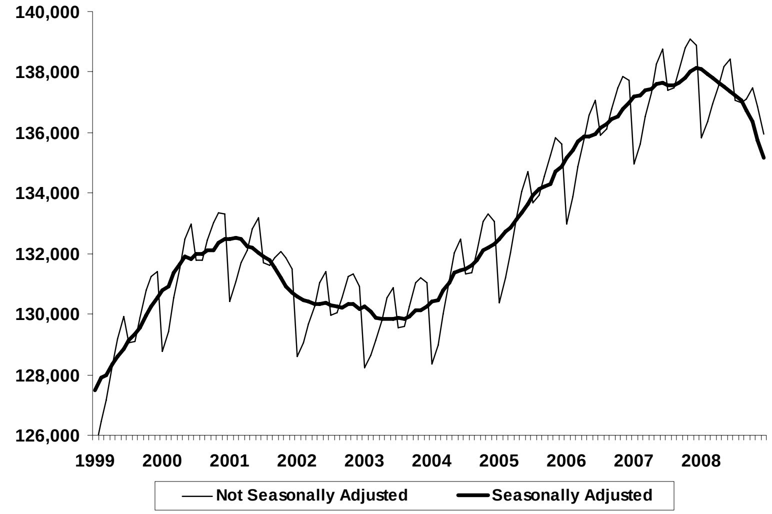
Employment is the total number of persons on establishment payrolls employed full or part time who received pay for any part of the pay period that includes the 12th day of the month. Temporary and intermittent employees are included, as are any workers who are on paid sick leave, on paid holiday, or who work during only part of the specified pay period.[1]

Important to note here is that the employment definition does not take into account whether employees are full-time equivalents or not. This has consequences for employment counts as people working more than one job will be counted multiple times in the survey. Similarly, but with opposite effect, since wages are tracked according to each employee, the average wage for an industry will not reflect a full 40-hour work week.

Seasonally Adjusted Employment, outside of business cycle changes, labor market activity fluctuates dramatically within the calendar year due to seasonal effects. Starting in 1992 the BLS began tracking employment from its LAUS survey using seasonally adjusted methods as well as the traditional (non-seasonally adjusted) methods.

As can be seen in the following graphic, the *Not Seasonally Adjusted* employment data contains cyclical peaks and troughs. This is only relevant for monthly, not annual, employment data.

United States Total Non-Farm (in thousands)Employment Seasonally Adjusted vs. Non-Seasonally Adjusted



Source: BLS

Data Suppressions, in addition to disparate definitions, federal agencies are required under law to limit the accuracy of data from surveys for privacy reasons. Per :

The Bureau has modified or suppressed some data on this site to protect confidentiality. [Title 13 United States Code](), Section 9, prohibits the Bureau from publishing results in which an individual's or business' data can be identified.[2]

Fortunately, the effects of suppressions are much more acute in large, unpopulated geographic areas. Somerville's combination of high overall business density (compared with largely unincorporated areas in the south and west) and small average establishment size creates *safety in numbers* and reduces the risk of endangering business privacy.

Alternatively, there are factors that work against the data quality for Somerville's business sectors. Because the number of large employing establishments is so small and they are divided widely among different industry sectors, these larger entities are particularly affected by suppression. Tufts is a notable example because it is the only large educational services establishments in the City, it straddles the Somerville/Medford border, and it employs people across a wide swathe of industry sectors and occupations (e.g. janitorial and maintenance staff for Tufts are not tracked under Educational Services, but instead, under Administrative and Waste Services). Similarly, many of Somerville's largest employers are non-private entities (Somerville School System, City of Somerville, etc) and do not pay unemployment compensation and are not tracked by the ES-202 survey.

Geographic Framework

Many of the economic concepts are the products of surveys with varying geographic organization. To the extent that useful comparisons can be made within and across data sets, this report seeks to offer the most specific context available. However, many of the concepts must be viewed in isolation or through inexact comparisons. For example, the ES-202 data is used widely in the *Somerville by Sectors* section. This survey has very precise industry sector detail for employment and wages, however, it can not be broken down smaller than the citywide level. This can be compared with the County Business Patterns data which uses similar divisions of industry sectors, but can be viewed by zipcode, offering more geographic granularity. The County Business Patterns data is limited, however, by having specific data for establishments only, employing data suppressions to the employment data and only offering ranges and only having data as recent as 2006 (ES-202 survey has complete 2007 data and partial data for 2008).

Another data set used in this report is the Journey to Work data which tracks the occupations of residents by Track. This is the most geographically specific data set used in this section and offers a very sophisticated breakdown of the nature and size of the Somerville labor force. The limitation of this data set is that the most recent survey available is from 2000 with new updates not coming until the completion and distribution of the 2010 in 2011.

Comparing Somerville to other economic regions also requires nuance to understand why certain regions are included and others not. U.S. and New England economic data trends are compared when showing some of the larger national economic forces shaping the area. When evaluating the distribution and movement of specific industry sectors in the metro-Boston area a range of municipalities have been selected to compare between cities with similar *or* contrasting geography, transportation access, demographics, land use, and industry mix. In order to make some of these trends compatible with other parts of this report, comparisons to a group of Cities referred to by MAPC as the Inner Core will be used. These Cities include: Belmont, Boston, Braintree, Brookline, Cambridge, Chelsea, Holbrook, Lynn, Malden, Melrose, Nahant, Newton, Quincy, Randolph, Revere, Saugus, Somerville, Waltham, Watertown and Winthrop.

SOURCES:

BLS – The Bureau of Labor Statistics, a unit of the United States Department of Labor, is the principal fact-finding agency for the U.S. government in the broad field of labor economics and statistics

BEA – The Bureau of Economic Analysis is an agency in the United States Department of Commerce that provides important economic statistics including the gross domestic product of the United States.

CENSUS – The United States Census Bureau is the government agency that is responsible for the United States Census. It also gathers other national demographic and economic data.

EIU – The Economist Intelligence Unit is a research and advisory company providing country, industry and management analysis worldwide. It is particularly well known for its country profiles, monthly country reports, five-year country economic forecasts, country risk service reports and industry reports.

IMF – The International Monetary Fund is an international organization that oversees the global financial system by following the macroeconomic policies of its member countries, in particular those with an impact on exchange rates and the balance of payments. It is an organization formed to stabilize international exchange rates and facilitate development

InfoUSA – InfoUSA, Inc. is a provider of business and consumer information products, database marketing services and Internet marketing solutions. It is a leader in comprehensive business databases and is the only company to build and maintain a proprietary database of virtually all US and Canadian businesses and residents.

II. SOMERVILLE'S ECONOMIC HISTORY

Now a populous and thriving city occupying 4.1 square miles of hilly land between the Mystic River and Massachusetts Avenue, Somerville's origins are rather humble. The earliest evidence of non-native development in what is now Somerville points to trafficking by early European traders who engaged in food gathering, poaching of shellfish and subsistent farming. The activity clustered around the regional corridor of trails from Mishawum (Charlestown) to the Charles River, Menotomy (Arlington) in the west and the Mystic Valley (Medford) to the northwest. Perhaps the most well-defined early route was from Charlestown to 'New Towne' (Cambridge) along what would become Washington Street through Union Square. The Millers River provided another source of food and activity, bridging the route to East Cambridge.

The area entered a new period with the settlement of Charlestown (founded 1628) and the development of local highways reinforcing connections along Washington Street and extending along Broadway, connecting to Arlington via Alewife Brook. Small farming developments were mostly replaced as land, now owned by Charlestown residents, was sub-divided with enclosures for grazing. Early contracts for grazing rights date back to 1632.

A few notable farming establishments remained, Woolrich on Washington Street and Winthrop estate at Ten Hills along the Mystic River. The latter became the site for Somerville's first industry: shipbuilding. Winthrop's "The Blessing of the Bay" sailed in 1631, reportedly the first of its kind in the colony. In its hay day near the end of the 18th century, there were as many as ten shipyards along the Mystic River.

Joining ship building as emerging industry were pottery, agriculture, stock raising, dairying, slate quarrying and brick making. The areas merchant activity was catalyzed by Middlesex Canal which connected trade along the Merrimack River (primarily with Lowell and Newburyport) with activity along the Mystic River and greater Boston.

The region beyond the neck continued to develop as a township until Somerville was finally incorporated as a city in 1842. Caleb W. Leland was the first representative of Somerville to the State legislature and he presided over the dispensation of City funds. The City was originally assessed at a value of $988,513, with an annual tax appropriation of $4,750 (a tax rate of 4.8 mills, compared with today's 18.2 mills).

An advertisement of the day called that "New times demand new manners and new men." The commonwealth responded in earnest with Somerville's population tripling by 1850. The message attracted a large number of specialized craftsmen, mechanics and entrepreneurs to the city.

The influx had a burgeoning effect the diversity of Somerville businesses. In 1845 Somerville had added tinware, pumps, paint manufacturing, cigar making, rolling, spike mills, steam engines and boilers, brass tube works, glass works, vinegar works, steam planning mills, harness and trunk factory, currying, a baker and upholstery hair factory (bleaching and dyeing).

These were largely supported by the operation of the Boston/Lowell railroad which began freight transportation as early as 1835. Soon after, heavy industry came to Somerville. In 1851, the American Tube Works was opened and began manufacturing the first seamless brass tubes in the U.S. using an English patent. It was soon followed by rolling and slitting mills, iron works and manufacturers of steam engines and boilers.

One of Somerville's largest early industries was brick making. While many of Somerville's new residents and businessmen were from towns in or around Boston, a surge of European immigrants (mostly Irish) settled in the city and found work at the local brick making operations. This increase in labor combined with technological innovations in the industry. Production reached a respectable level of 1.3 million bricks a year when being made by hand. This number jumped to 5.5 million with the advent of the new patent press.

This industry continued to grow apace through much of the rest of the 19th century. As transportation and real estate development moved forward in tandem, street cars lines connected with large tracts of land being developed for dense housing with Somerville's population growing six fold between 1870 and 1915. The new supply of labor, with good transportation access, helped to fuel a brick making business that was supporting building both in suburbanizing Somerville and expansive land development occurring all over the country. At its height, Somerville had twelve brick making yards producing over 24 million bricks a year.

Following a similar trajectory as that of the brick making industry is the animal processing. Throughout the Colonial period the banks of the Millers River had been home to a range of farming, livestock and butchering businesses. Industrialization allowed these activities to take the next step and the meatpacking industry became Somerville's largest sector in the late 19th century.

Somerville meat-packing plants had an annual value of $4.4 million- more than all other Somerville industries combined. By 1898, Somerville was reportedly the third largest meat-packing center in the United States, and was known as "the Chicago of New England." As late as the nineteen-twenties, Somerville's leading industry was still animal slaughtering and meat packing. The last meat-packing plant in Somerville is believed to have closed in the mid-eighties.

The Ford Motor Company plant opened in 1926 along the Mystic River in what is now Assembly Square. The plant peaked during the post-war period as suburbanization drove the demand for cars and heavy industry had yet to leave New England for the lower cost areas to the Midwest and South. The auto industry was supported by warehousing and distribution businesses (First National Stores and A&P were the two largest) that smoothed the supply chain of auto parts and specialty equipment required for the Ford plant.

With the decline of manufacturing and the exodus of people from urban areas during the 60's and 70's, Somerville's economic character moved from one centered on major industry to that of a diverse mix of service sectors. While some niche heavy industry persisted (many companies dating back to the early 20th century can still be found in Boynton Yards), entertainment, food and drinking, banking, health care and personal services became the employers for the majority of Somerville residents. As population and local employment waned throughout the second half of the 20th century, Somerville's economy transitioned to its current state of almost exclusively small businesses with a large portion of its labor force (particularly the well-educated part) finding employment outside the city.

III. GLOBAL PERSPECTIVE

Economies are regional in nature and are heavily dependent on trade flows. As will be shown in later sections, Somerville's economic base is largely focused on servicing its native labor force. In spite of this, there are larger global, national and regional economic forces that govern the direction of its local residents and small businesses. Particularly affected are Somerville's niche manufacturing base which serves national and global clients and any firm that supplies or supports export market activity in Boston.

Residents can also feel global economic changes in their everyday life. Prices for food products, fuel and even low value-added products like textiles have increased at a rate well outpacing wage growth. Since Somerville has a large professional working population that lives in the city but works elsewhere, changes to supply chain management by large multi-national corporations and competition in sectors being globalized make for a challenging labor market.

1. Currency shifts, brought on by the moderating of American global financial clout, will increase costs for U.S. businesses and consumers.

Recent observations on energy prices (sinking oil prices), mode choice (only a marginal shift away from automobiles), currency valuation (rebounding dollar), capital flows (flight to quality, back to U.S. based equities), emerging markets (extreme volatility in smaller Southeast Asian, Eastern Europe and Latin American economies) and labor force development all point to a relatively stable global alignment. Although not enjoying the hegemony of the period directly following the fall of the Berlin Wall, in the near term the U.S. should maintain most of the economic realities its come to expect: unsurpassed quality of life, stable prices and the lion's share of high-end service and manufacturing jobs.

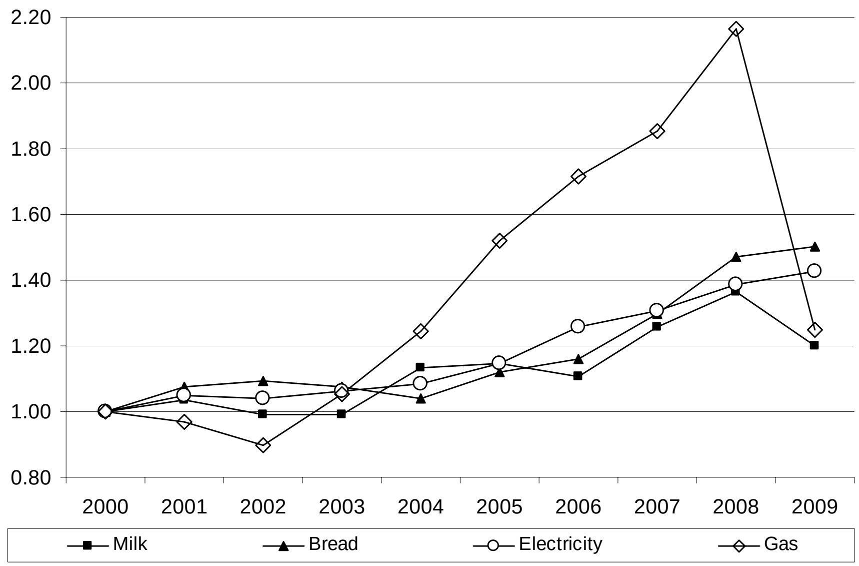
Conversion Rate for Euro to U.S. Dollar

Source: IMF, 2001 - 2009

Currencies roughly follow the behavior of other commodities: they are affected by supply and demand. The amount of goods traded in a given currency (the size of a country's economy) and the demand for government debt as a hedge against risk (the stability and power of country) are two significant factors among many that determine relative value of currency. The U.S. has experienced setbacks in both of these areas in the last decade, largely related to its lagging economy, enormous trade and fiscal deficits and reputation abroad.

The impact on currency and therefore the purchasing power of its citizens has been palpable.

U.S. Indexed Prices on Major Consumer Goods 2000 – 2009*



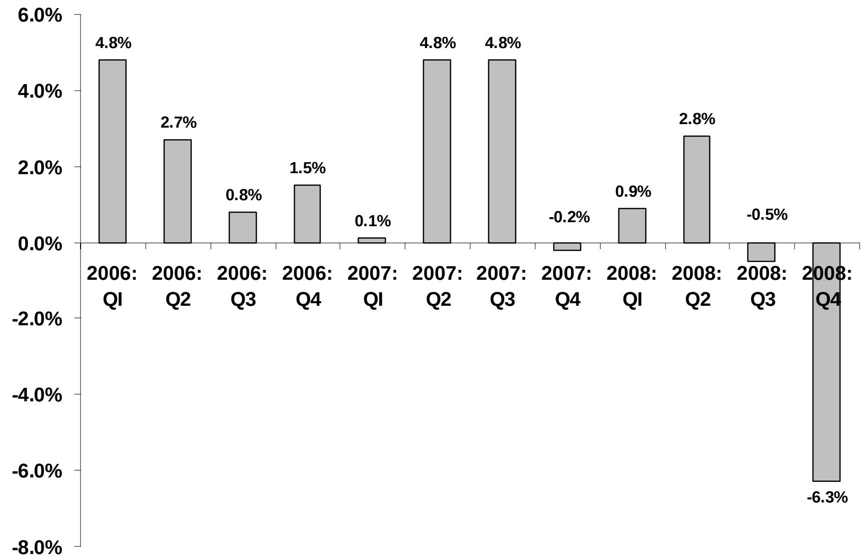
BLS, *2009 estimate based on first quarter

Looking at two common forms of food and energy in the U.S., each item increased in price by at least 20% from 2001 to 2008. Gasoline, which is heavily influenced by the geopolitical environment, tropical storm occurrences and a rigid (and largely obscured) supply chain sees some of the most volatile prices change in thirty years. The initial response of U.S. consumers was to make mild adjustments to consumption patterns, or to ignore the price change altogether by maintaining consumption. Finally, after almost a decade, households are starting to change behavior by reducing consumer spending (particularly on luxury goods), by installing energy saving measures in their homes, eating out less, and reducing trips or switching modes away from automobiles. This reduction in spending has been compounded by falling real estate prices and a loss of perceived wealth as equity erodes.

2. The U.S. and the global economy are in the midst of a large economic contraction. The global economic downturn will affect manufacturing and energy producing countries hardest.

In 2009, the global economy is in the early phases of an economic recession. As the largest economy in the world, the U.S. has already felt the painful consequences of economic contraction in the form of falling home prices, falling stock prices and job-loss.

GDP Growth U.S. 2006 to 2008



Source: BEA

However, historical data on economic downturns shows that it is often producer nations that take the brunt of recession. U.S. sectors related to finance, home building and high-end retail have been forced to shed employment, however, global suppliers to the U.S. in manufacturing (China), energy (Saudi Arabia) and automobiles (Japan) are decreasing at much faster rates.

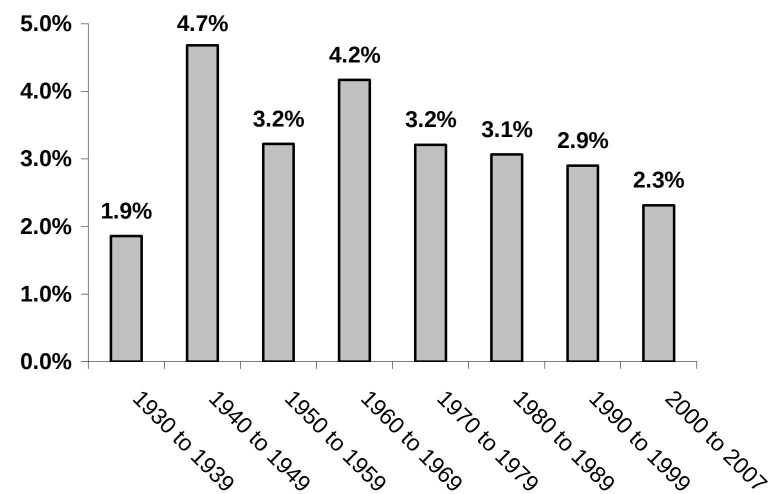
Annual Growth in GDP, Top Five Non-U.S. Economies

	2004 to 2008	2008	2009*
Japan	1.7%	-0.7%	-6.4%
China	11.0%	9.0%	6.0%
Germany	1.5%	1.3%	-5.3%
United Kingdom	2.3%	0.7%	-3.8%
France	1.9%	0.7%	-3.0%

Source: Country Data, EIU *2009 estimates based on first quarter

In addition to an immediate slow down in economic performance, the United States has experienced slowing growth in output since the 1960's. After the much lower figures from 2008 and 2009 are finalized, the 2000's will have GDP growth approaching 2%. This is comparable to the Great Depression, the worst economic period in the last century.

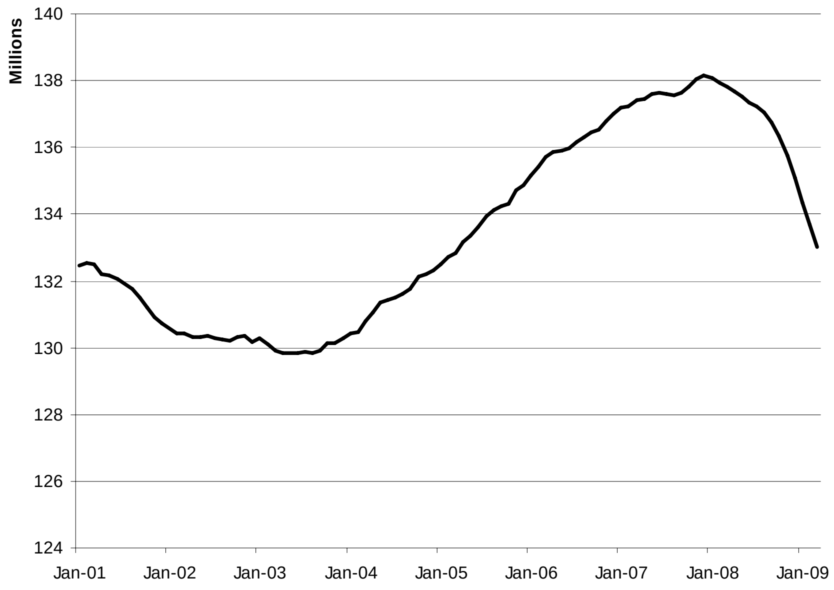
GDP Growth* U.S. by Decade, 1930 to 2007



Source: BLS, *Compound annual growth

Employment in the U.S. has suffered large declines over the last few quarters. The most recent peak in the economic cycle occurred when jobs nation-wide hit 138.2 million in December of 2007. Since then the economy has lost 5.1 million jobs in fourteen months. The industries most affected by the downturn are construction (down 14%), manufacturing (down 10.6%) and support services (down 12.5%). Real estate and leasing services is next on the list, down 6.1% since the end of 2007. Combining that with the losses in construction and the collapsing of the housing market has led to the destruction of 1.4 million jobs. The indirect fallout from this contraction has ripples that similarly affect financial services, transportation and any consumer based industry.

Employment U.S. 2001 to 1st Quarter 2009

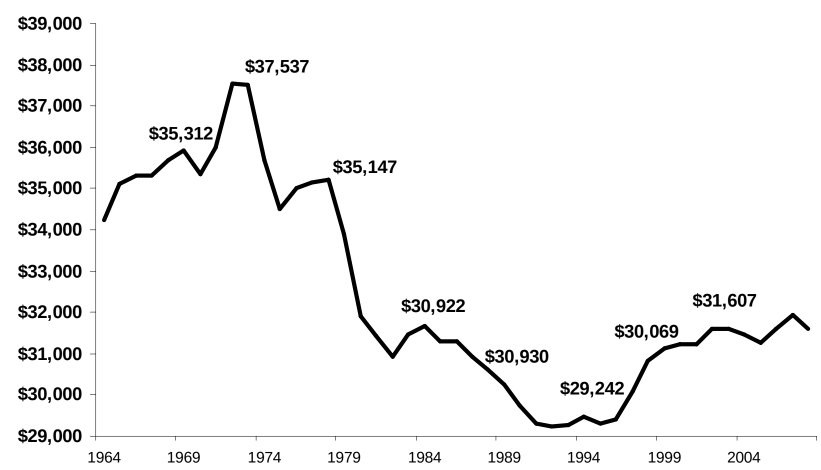


Source: BLS

3. Real wages in the U.S. have decreased significantly since their peak in 1973. One of the strongest factors affecting this trend is the movement away from production towards service oriented activities.

There have been two major shifts to the U.S. economy since World War II: loss of manufacturing and globalization. Changes to industry mix have had significant effects on the type of work people do and their level of compensation. Globalization has had wide-reaching effects that vary by industry. One common consequence is the entrance of a much larger workforce to the global economy and a correlating drop in the price of labor.

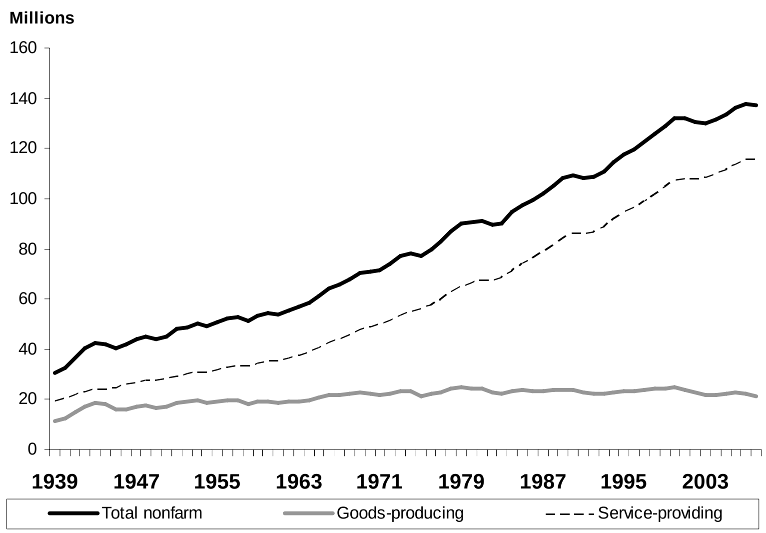
U.S. Real Wages* 1964 - 2008



Source: BLS, *Wages based on 40 hour work week

There are many factors that affect real wages in the U.S. Global competition, women entering the workforce in increasing numbers, immigration, higher inflation rates all have an eroding affect on the real value of compensation. However, the largest shift may be the movement of the U.S. economy, in aggregate, from a producer economy to a consumer economy and the transition from goods production to services production.

U.S. Employment by Major Sector 1939 – 2008



Source: BLS

Since statistics became available on industry mix there has been a consistent and long-term shift away from manufacturing. In fact, while manufacturing has added 9.9 million jobs in the last seventy years, other sectors have increased by 96.5 million, or almost ten-fold the amount.

There are some non-structural reasons for this shift. For example, in the 80's and 90's, many manufacturing firms began to outsource their janitorial, maintenance and food service work to other private firms. Jobs that had been 'labeled' manufacturing, but were in fact service jobs already, were being more accurately accounted for. Additionally, when BLS converted to NAICS, a number of sectors which formerly resided in manufacturing were reclassified under transportation, information, or other services.

In general, however, the transition was real. The United States has conceded large market shares in manufacturing industries to emerging economies all over the globe, such as Eastern Europe, Latin America, South East Asia, and, more recently, to India and China. The business reasons for the migration of jobs often has to do with the high labor costs in the U.S. The end result is that Americans are substituting what were high-paying specialized jobs for often lower paying service sector jobs.

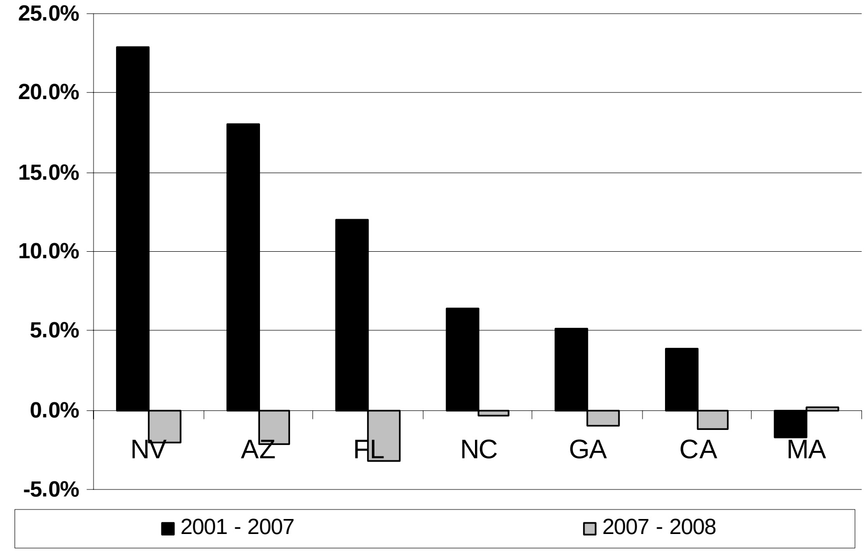
In Somerville, this has been evidenced by the rise and fall of a string of manufacturing, starting with basic pottery, slate and bricks production, with the brickyards being replaced by brass tube manufacturers, which were then followed by glass manufacturing and finally automobile plants. The Ford plant closed when heavy manufacturing left Massachusetts en masse after World War II. The remaining manufacturing uses are smaller scale niche sectors with the local economy transformed, maybe permanently, towards service sectors for health and education.

III. REGIONAL PERSPECTIVE

4. Economic activity is decreasing across much of the U.S., but the same areas that experienced rapid growth in the early 2000's are now shrinking the fastest.

The metropolitan areas that are experiencing severe employment and gross regional product losses are the same who expanded the most aggressively during the post-911 period in the early 2000's. Areas in Nevada, Southern California, Arizona, and the South Eastern U.S. now have the largest unemployment and housing depreciation. These areas received a large number of economic migrants from the rest of the country, particularly young professionals. It remains to be seen if this immigration trend reverses or if new economic opportunities will allow those states to maintain their population.

Employment Growth Comparison 2001 to 2007 vs. 2007 to 2008

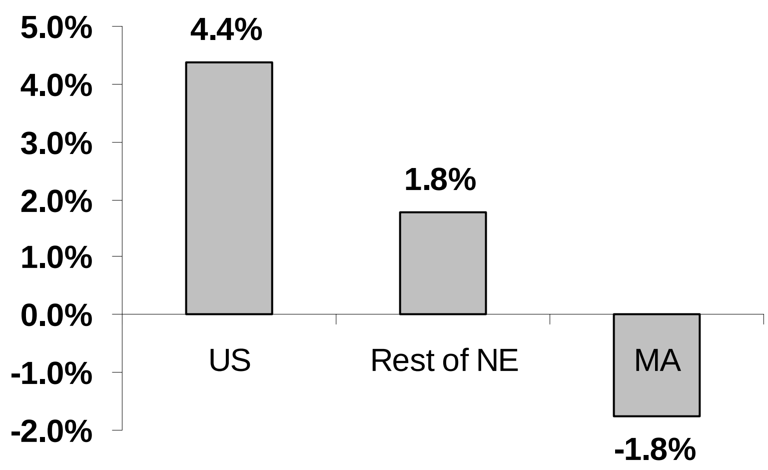


Source: BLS

5. New England in general and Massachusetts specifically benefited less than the rest of the U.S. from the last economic expansion.

The New England region experienced slow growth over the period from 2001 to 2007. In some states, including Massachusetts, growth was negative. Population growth was also negative in every state except New Hampshire. This trend is consistent with past economic cycles. The older northeastern economies are less dynamic causing them to benefit least from emerging sectors. Higher labor and housing costs are the biggest barriers to entry for new industry. Similarly, these areas are the slowest to enter downward cycles as well. However, historically they experience these downturns more acutely and take longer to reach pre-recession levels of employment.

Employment Growth by Region 2001 – 2007

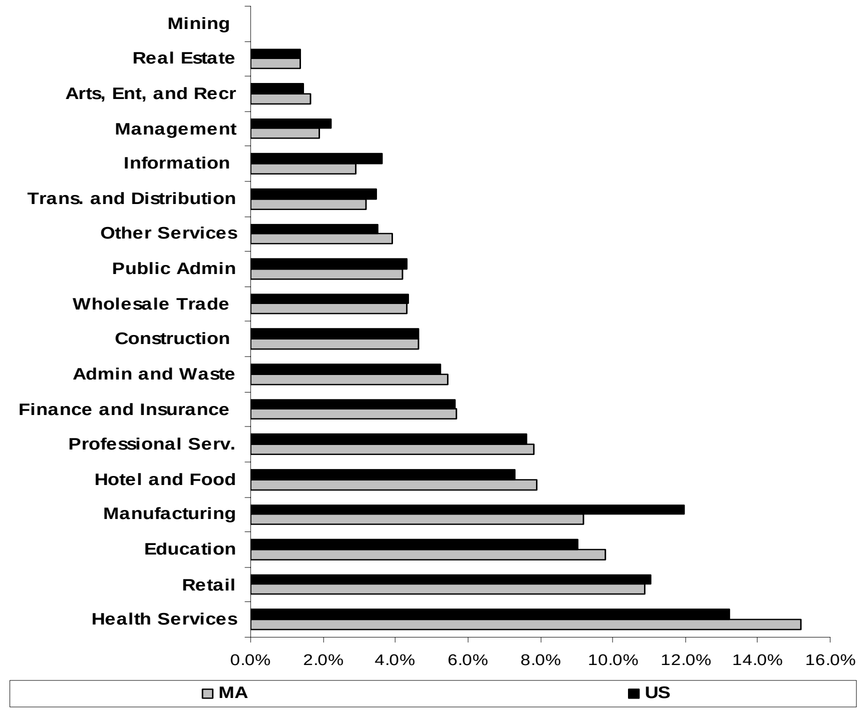


Source: BLS

6. Industry mix is a significant factor in regional growth. Having large concentrations of health services and higher education should serve Massachusetts well.

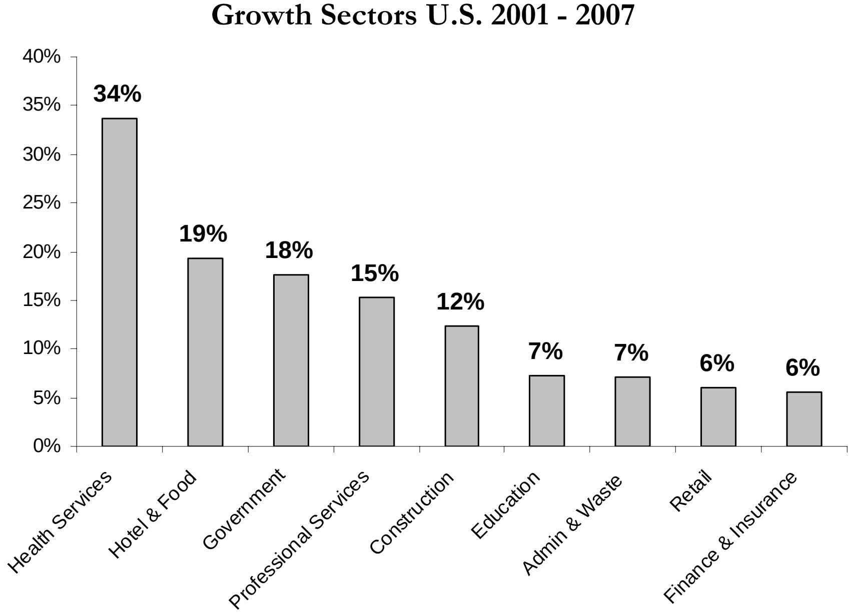
With the technology bubble bursting in 2000 and now the housing bubble in the middle phases of deflating, it is clear that economic performance can be heavily tied to specific industry sectors. Especially since Somerville's economy is heavily tied to supporting the Boston metro area, looking at the recent trends for the key regional sectors may reveal the extent to which the economic downturn will affect the City.

Employment Composition U.S. and Massachusetts 2007



Source: BLS

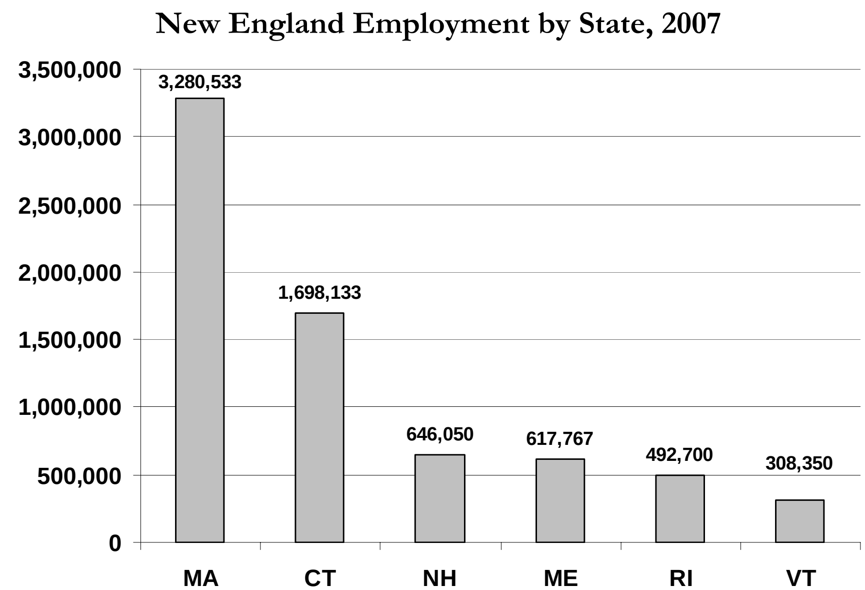
Employment composition comparisons (sometimes called *location quotients*) calculates a given industry's share of the total regional economy and then sees how it compares with other areas (in this case, the U.S. as a whole). Here it can be seen the largest components of the Massachusetts economy are Health Services (15.2%), Retail (10.9%) and Education (9.8%).



Source: BLS

Health Services in particular, but also Hotel and Food, Professional Services, Education and Retail have all been top sources of job growth in the U.S. during the most recent economic expansion.

While it is difficult to predict what industries will expand in the future, Massachusetts looks to be in a strong position. In particular, health care services could be a pivotal industry. As demographics in the U.S. shift towards an older population and the costs of providing care continue to increase rapidly, businesses and households will be looking for change. This could take the shape of a national policy or simply a reshuffling of business costs and consumption patterns. Massachusetts has been at the forefront of progressive health care legislation. The possibility of new reform along with an extensive foundation of world-class medical facilities could be a source of economic opportunity.



Source: BLS

Massachusetts is the largest economy in the area, with employment of 3,280,533. This makes up almost half of the employment of the region (47%) and it has the only major metropolitan area in Boston. Even when considering regional trends, it is important not to underestimate the power of cities. Dense urban areas contain the critical mass of labor force and built environment to leverage the next cycle of economic expansion.

Boston is a special case in that it is home to one of the largest clusters of higher education in the world. Economic contractions can be viewed in terms of structural versus cyclical job loss. In the case of structural job loss, the industry in question will be losing jobs that it never recovers (e.g. street car manufacturers during the onset of the automobile). The flip side to this is that during economic expansion, structural changes include the growth of new industries and services that incorporate emerging technology. Boston's abundance of academic institutions may allow it to be an early adopter of the next growth industry. Establishing these emerging sectors early creates a network of expertise, financial access (venture capital), and labor that can anchor a new industry.

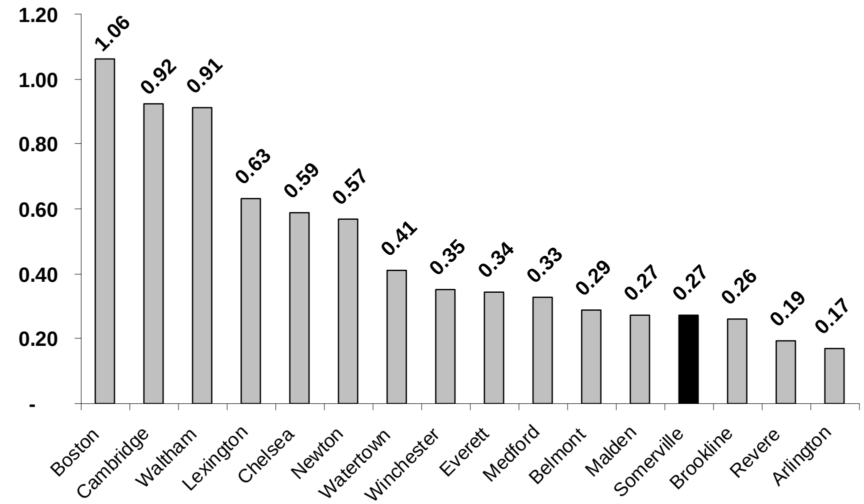
IV. SOMERVILLE'S RESIDENT LABOR FORCE

Somerville's local economy has not mirrored its local population in terms of dynamic change. Whereas Somerville's residents have experienced drastic changes to median income, household formation and educational attainment, trends for employment and businesses have not experienced similar large structural changes.

7. Somerville's economy is strongly tied to its residential population.

Because such a large portion of Somerville's land area is allocated to residential uses, and because historical patterns of economic development have kept the City from developing a strong local economic engine, much of the commercial activity exists to support the residents of Somerville's various neighborhoods.

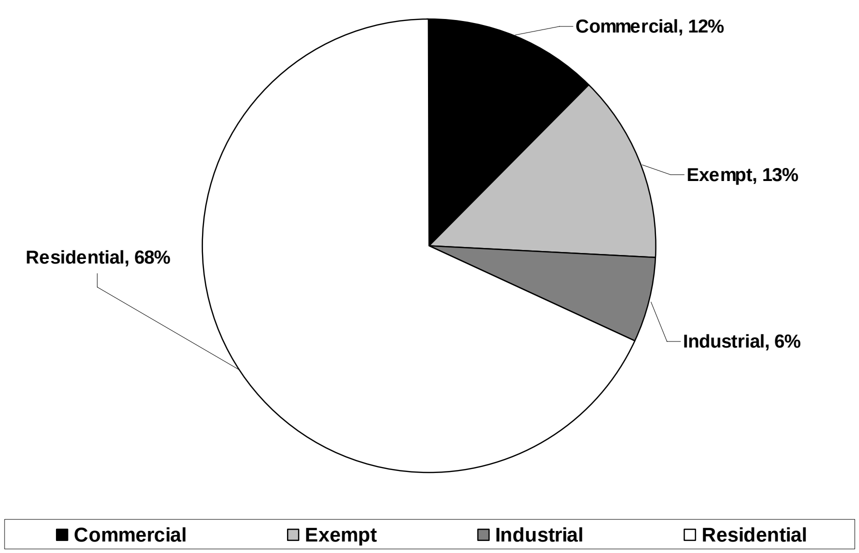
Local Employment Per Capita 2007



Source: BLS

With a local employment per capita rate of .27, Somerville ranks near the bottom of neighboring cities in terms of locating businesses within its borders relative to its population. With such a large local population, many of the businesses located in Somerville's commercial squares and along major corridors provide services directly related to residential needs: grocery markets, personal services, and home goods.

Property Type Somerville, 2007



Source: Assessor's Database

Challenges to developing a strong local employment base are partly related to land use. Over two-thirds of Somerville's 4.1 square miles is occupied by residential properties. The limited areas where commercial development is possible face a number of challenges ranging from historical circumstances, infrastructure needs and regulatory challenges.

8. Somerville's economic strength resides in its large and talented labor force.

The City of Somerville has a population density of 18,147 per square mile, making it the densest in New England and near the top ranked in the country. This density is somewhat mitigated by the large proportion of land area designated for residential use (similar comparisons related to built square footage show Somerville to be less dense), but it remains that Somerville is home to a large local population.

The trends sections on population show many of the characteristics of this population, but from an economic perspective we are primarily concerned with its labor force attributes. As of March of 2009 (most recent data), the labor force statistics for Somerville are:

Somerville Labor Force Indicators

Labor Force	45,400
Employed	42,922
Unemployed	2,478
Area Rate	5.5 %
Massachusetts Rate	8.2 %

Source: BLS

Although Massachusetts has fared well compared with the rest of the country (the unemployment rate for the U.S. is 8.9% and is as high as 12.6% in Michigan), Somerville's unemployment rate is significantly lower. Somerville's transformative educational attainment (covered in detail in other sections) certainly plays a role in the resiliency of the local labor force. Another factor is the occupational mix of Somerville residents.

Employment by Occupation, Somerville 2000

	43,677	**100%**
Managerial and professional specialty occupations		**33%**
Executive, administrative, and managerial occupations	5,489	13%
Professional specialty occupations	8,747	20%
Technical, sales, and administrative support occupations		**35%**
Technicians and related support occupations	2,366	5%
Sales occupations	3,791	9%
Administrative support occupations, including clerical	9,013	21%
Service occupations		**22%**
Private household occupations	117	0%
Protective service occupations	699	2%
Service occupations, except protective and household	5,593	13%
Farming, forestry, and fishing occupations	155	0%
Precision production, craft, and repair occupations	3,256	7%
Operators, fabricators, and laborers		**10%**
Machine operators, assemblers, and inspectors	2,032	5%
Transportation and material moving occupations	1,176	3%
Handlers, equipment cleaners, helpers, and laborers	1,243	3%

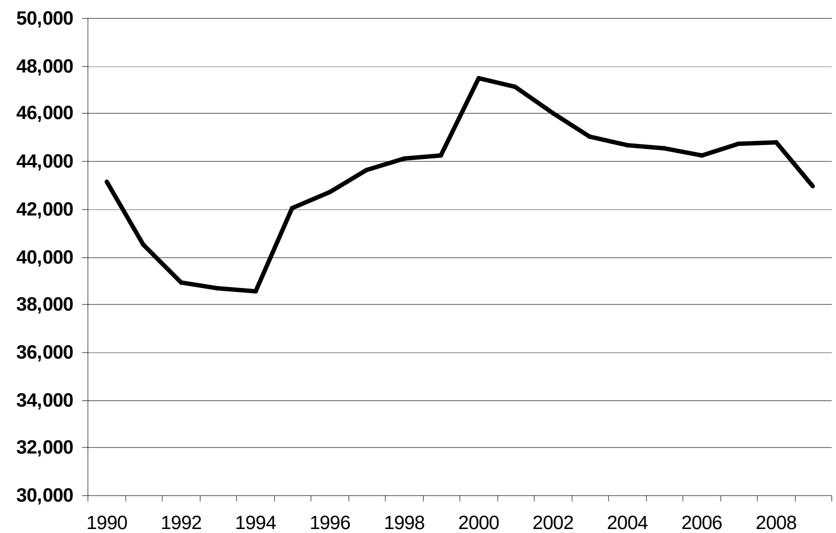
Source: 2000 Census

The most critical aspect of Somerville's labor force is that a majority (58%) have occupations in managerial, professional, technical, sales or administrative positions. These jobs tend to earn higher wages (see industry specifics later), are in high-value added service industries, and typically offer full time hours with a variety of benefits. People in these occupations often have an undergraduate or higher degree and quantitative, computing and communication skills that are strongly pursued in the job market. This mix of skill sets is particularly crucial during times of economic contraction as their diversity of application allows laborers to find new work more easily in the case that they find themselves unemployed. This occupational mix suggests a talented and flexible workforce.

9. Somerville's residential employment trends with its population; both follow larger economic cycles.

Somerville's residential employment has actually experienced small negative growth since 1990. Losing 240 jobs or -0.5% from 1990 to 1st quarter 2009, Somerville residential employment achieved a peak of 47,833 in 2000 and a low of 38,571 in 1994.

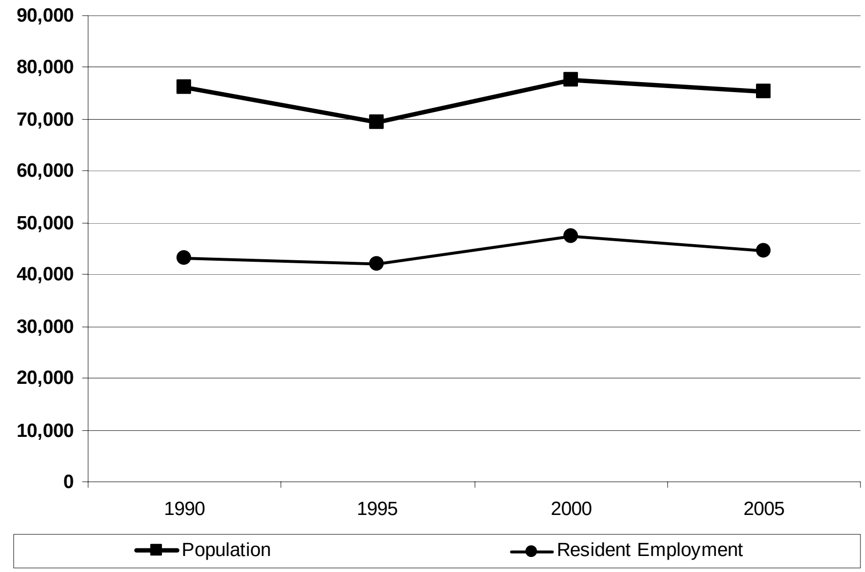
Residential Employment Somerville, 1990 – 2008



Source: BLS

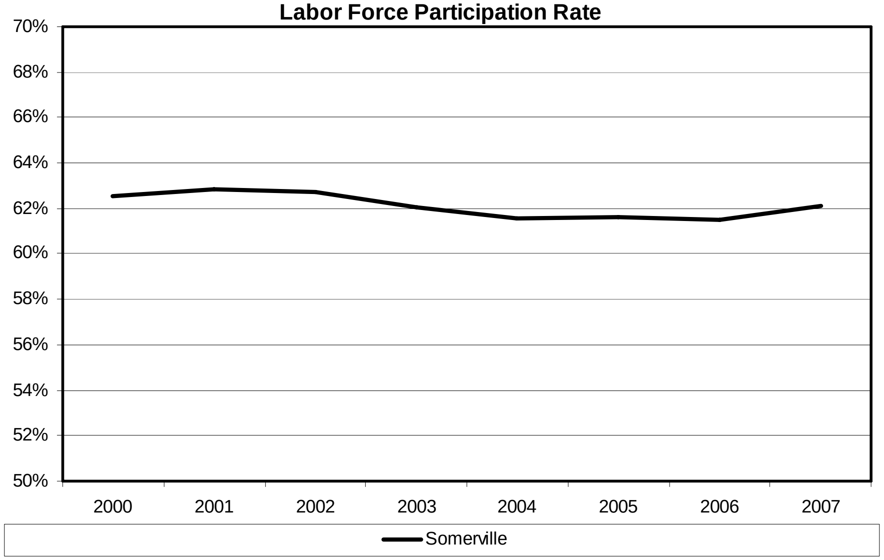
Residential employment grows and shrinks along a similar pattern with U.S. economic cycles. The down turns experienced by Somerville between 1991 and 1995, 2001 and 2005, and at present, mirror periods of economic contraction for the U.S. economy.

Population and Residential Employment 1990 - 2005

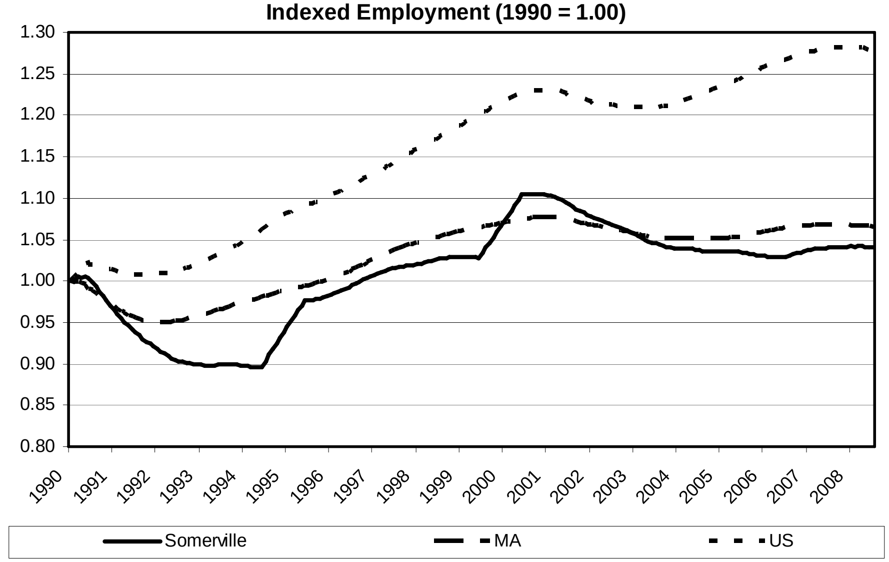


Source: BLS

Due to the infrequency with which the population figures are estimated, it is impossible to get sufficient data points to accurately determine whether residential employment moves proportionately with population, however, the directional relationship is clear. Residential employment trends with population in Somerville over the last fifteen years, from 1990 to 2005. This has significant consequences for Somerville's labor market, residential real-estate market and local property tax base. It will be interesting to see if this trend continues through the current recession, since, thus far, Somerville's housing market has maintained much of its value.



Source: BLS



Source: BLS

While there are many underlying factors (age, household composition, employment opportunity, etc), labor force participation rate is the conceptual link between population and employment. In Somerville over the period from 2001 to 2007, the labor force participation rate has been very stable.

When compared with employment in Massachusetts and the U.S. over the past two decades, Somerville has experienced slower growth. Since the overall levels of employment for Massachusetts (3,245,800 in 2008) and U.S. (135.9 M in 2008) are orders of magnitude larger than those of Somerville, Indexed employment is used to compare growth graphically.

10. The majority of Somerville's resident labor force works outside the city. Primarily they are employed by firms located in Boston and Cambridge.

Most of Somerville's resident labor force works outside of Somerville. One of the factors is the discrepancy between the city's high powered labor force and the limited number of local employment opportunities. Somerville's small commercial base is only half the story, however. Occupational demand has shown to be a highly specialized practice in the knowledge economy. There are thousands of different classifications of occupations just within Technical and Professional services. Frequently firms will offer much higher compensation (and workers will bear much longer commutes) in order to find the exact pairing of skill sets for a given position.

Top Places to Work for Somerville Residents

Boston	12,491	27.8%
Cambridge	9,083	20.2%
Somerville	7,092	15.8%
Medford	1,614	3.6%
Newton	1,019	2.3%
Waltham	970	2.2%
Burlington	831	1.9%
Woburn	687	1.5%
Watertown	541	1.2%
Everett	530	1.2%

Source: 2000*

*It is important to note that, like much of the data in these trends reports, this survey is only available as recently as 2000. Additionally, the Journey-to-Work data that is the product of this survey will not be available in future years.

Top Cities of Origin for Somerville Local Employment

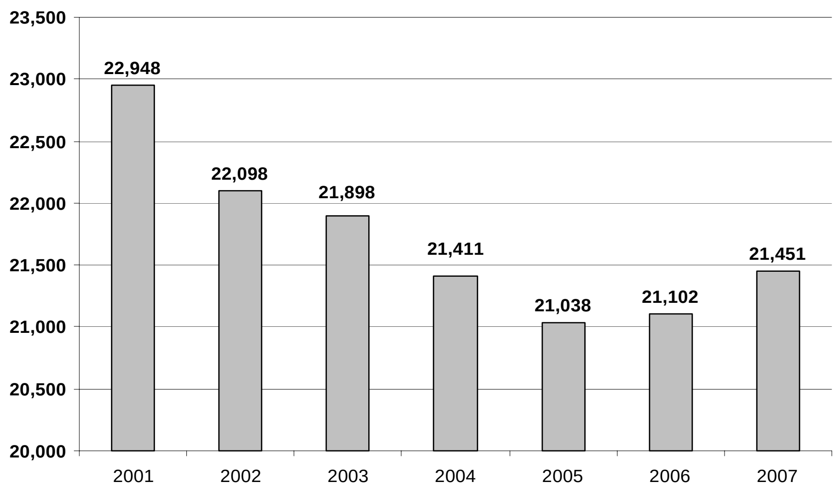
Somerville	7,092	33.61%
Boston	2,063	9.78%
Cambridge	1,305	6.18%
Medford	1,335	6.33%
Arlington	602	2.85%
Malden	550	2.61%

Source: 2000*

V. SOMERVILLE'S LOCAL ECONOMY

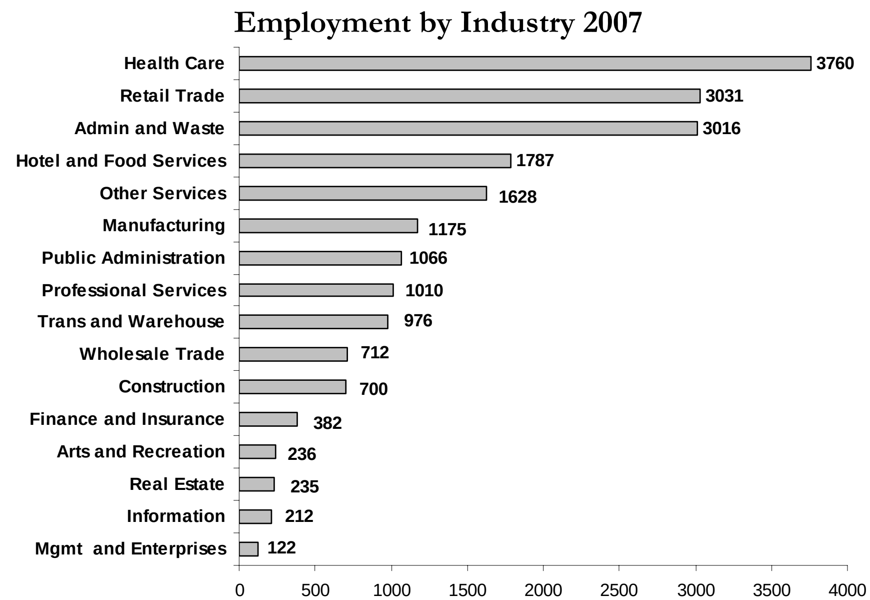
In many respects Boston's economic competitiveness in education, finance and health care have not benefited Somerville to the same extent as its regional neighbors. The Journey-to-Work data shows the ability for certain towns to absorb Somerville resident workers through employment opportunity. Later sections that show the more detailed industry composition for Somerville local employment reveal that not only that Somerville's local employment base is small, but that it is also of lower quality than some of its neighbors who benefit from a larger concentration of high-value added jobs.

11. Somerville's local employment has decreased in the 2000's.



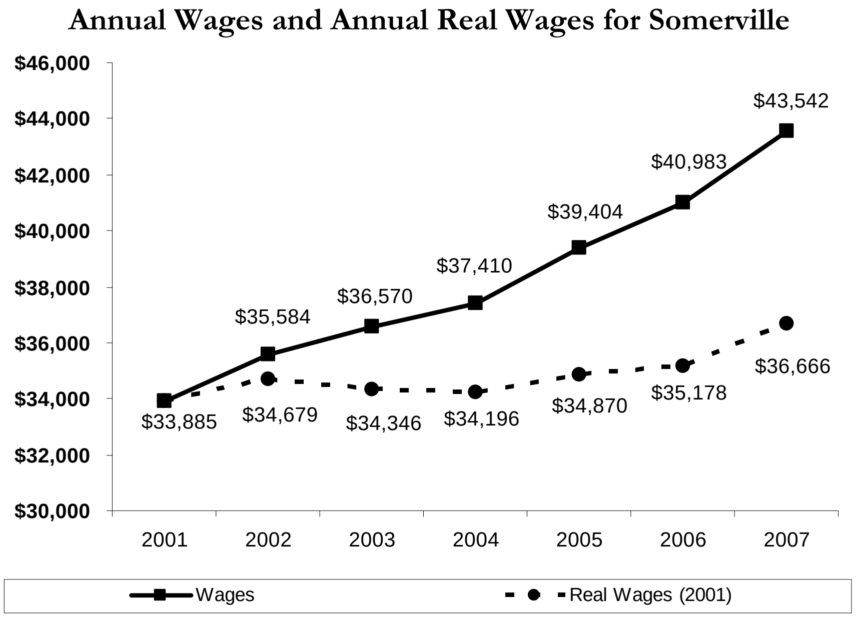
Source: BLS

Somerville local employment includes jobs in businesses located within Somerville (this includes both workers from Somerville). Employment levels have decreased by 1,497 since 2001, a decrease of 7%. Employment experienced a brief period of positive growth in 2006 and 2007, but this trend has most likely since reversed in light of the severe economic climate.



Source: BLS

Somerville's local employment is spread across a variety of industry types. The NAICS classification is the most widely used system for organizing types of economic activity. The major sectors listed above are the 2-digit classes (levels of specification range from 1, all industries, to 6). Later in this report NAICS sectors will be analyzed individually.

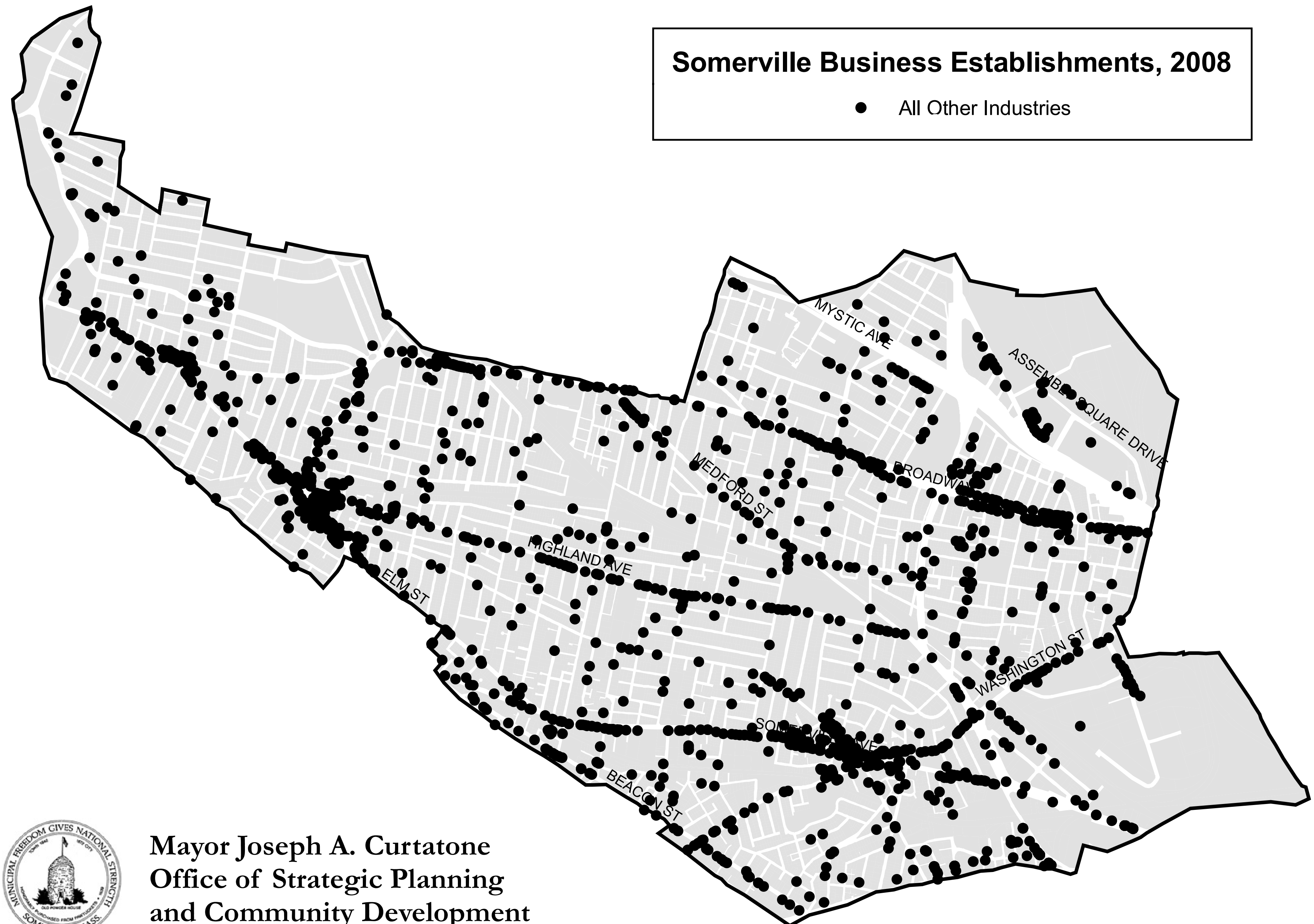


Source: BLS

Somerville's wages have grown significantly since 2001, rising almost ten thousand dollars a year from $33,885 in 2001 to $43,542 in 2007. Unfortunately, this period has been one of strong inflation growth, both in the U.S. and in the Metro-Boston area (the CPI used to adjust Somerville wages is regional to Metro-Boston). With real wages at only $36,666, the purchasing power for employees working in Somerville is still low for the State. Particularly, given Somerville's recent growth in property values, the likelihood for the average Somerville wage earner to afford a mortgage for a home in Somerville is unlikely.

Source: BLS

Somerville establishments range the full spectrum of NAICS major industry classifications with the exception of utilities. They are located is a diverse geographic pattern across the city. Clusters of businesses are located in all neighborhoods along major transportation corridors and in business and industrial districts.



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VI. INDUSTRY TRENDS: HEALTH & SOCIAL SERVICES

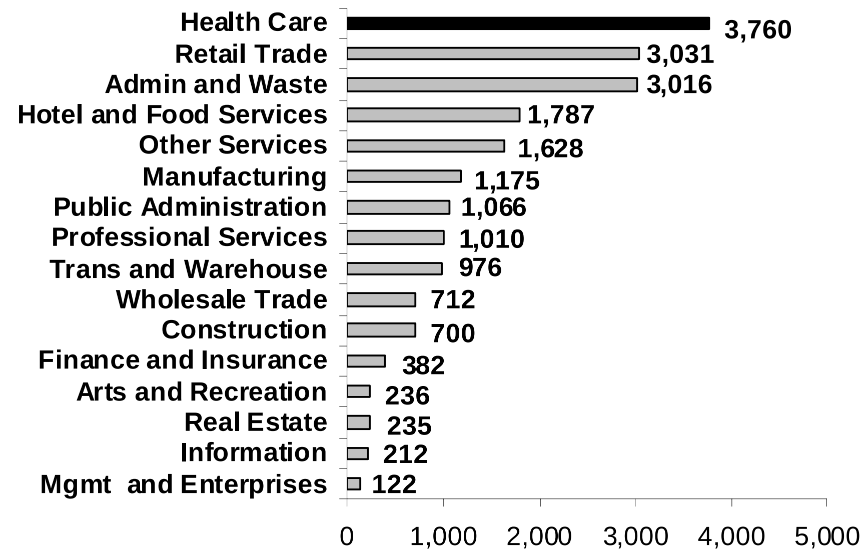
Health care refers to the treatment and management of illness, and the preservation of health through services offered by the medical, pharmaceutical, dental, clinical laboratory sciences (in vitro diagnostics), nursing, and allied health professions. Health care embraces all the goods and services designed to promote health, including "*preventive, curative and palliative interventions, whether directed to individuals or to populations*".

Within the NAICS system the health care sector is organized along a spectrum with health care at one end and social assistance at the other (these are often difficult to distinguish). Census mentions about this industry that:

"*The services provided by establishments in this sector are delivered by trained professionals. All industries in the sector share this commonality of process, namely, labor inputs of health practitioners or social workers with the requisite expertise. Many of the industries in the sector are defined based on the educational degree held by the practitioners included in the industry.*"

12. The Health Services is the largest employing industry sector in Somerville.

Health Services establishments in Somerville employed 3,760 people in 2007. This makes it the largest employing sector by a sizable margin over Retail Trade (3,031) and Administrative and Waste services (3,016). Given Somerville's small local employment base, the high levels of health services employment represents a serious concentration of high value-added economic activity in one of the region's long standing core sectors.



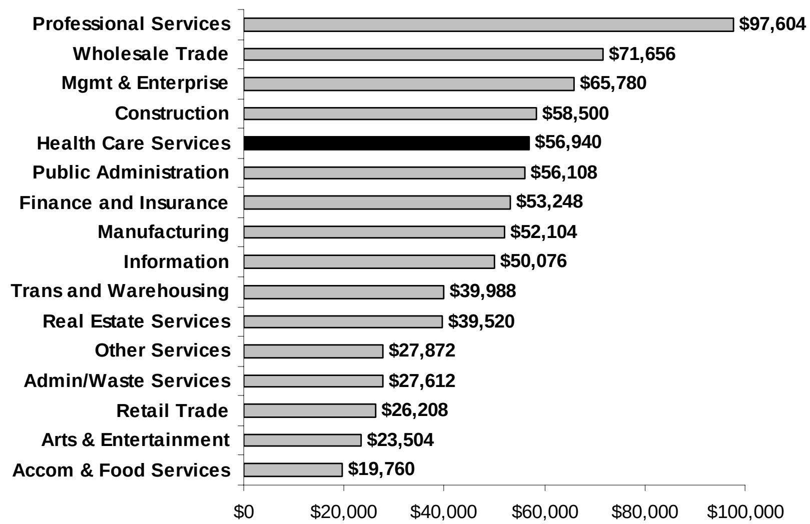
Source: BLS

The high concentration of health services firms in Somerville is related to the city's proximity to a large population of health care consumers combined with the nature and supply of office space. While Somerville is well known for its population density (#1 in New England), Health Care firms draws from a much wider area than the four square miles of the city limits. Firms locating in Somerville are close to Boston's downtown, while having good access to the Route 1, Route 2 and Interstate 93 corridors that offers catchment over Boston's inner core as well as the northern half of the 128 ring. With the demand side taken care of, Somerville's supply of small and medium sized office space, positioned just outside the city, allows a low-cost alternative for smaller health services operations that aren't dependent on close proximity to Boston's medical universities and that don't require large spaces for specialized equipment.

13. Jobs in the Health Services sector are among the highest paying jobs in Somerville.

The average wage for health services jobs is $56,940. Chart X shows this to be one of the fifth highest paying sector in Somerville, but even more important to note is that due to the high level of employment in the Health Services sector, this represents <u>25% of all wages</u> in the city.

Somerville Average Wages by Industry Sector



Source: SOURCE: BLS, 2007 Real Dollars

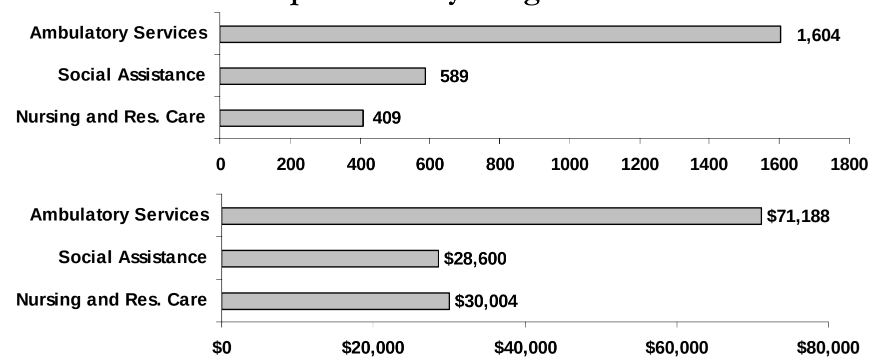
A more detailed look at the industry composition of the sector is helpful to understanding the types of health services firms located in Somerville, as well as understanding the reasons for the high levels of wage compensation.

14. The high concentration of ambulatory services in Somerville is responsible for the high average salaries in Health Services.

Ambulatory service employment has both the highest employment level (1,604) and the highest wage compensation ($71,188) in the health services sector in Somerville. Census describes the operations of such services as:

"Industries in the Ambulatory Health Care Services subsector provide health care services directly or indirectly to ambulatory patients and do not usually provide inpatient services. Health practitioners in this subsector provide outpatient services, with the facilities and equipment not usually being the most significant part of the production process."

Somerville Health Services Employment and Wage Compensation by 3-digit Sector



Source: SOURCE: BLS, 2007 Real Dollars

Every city wants high wages, but it's important to understand the other two 3-digit sectors that make up the health services industry. These two sectors comprise nearly 1,000 jobs together which is roughly 5% of the local employment in Somerville. Census defines these two types of operations as follows:

Social Assistance,

Industries in the Social Assistance subsector provide a wide variety of social assistance services directly to their clients. These services do not include residential or accommodation services, except on a short stay basis.

Nursing and Residential Care,

Industries in the Nursing and Residential Care Facilities subsector provide residential care combined with either nursing, supervisory, or other types of care as required by the residents. In this subsector, the facilities are a significant part of the production process and the care provided is a mix of health and social services with the health services being largely some level of nursing services.

Clearly these are important services. While they have regional appeal they also provide easily accessible care for a large part of Somerville's residents.

Not surprisingly, but not obvious from the public data, one of the largest actors in the health care services sector in the city is Somerville Hospital at 230 Highland Ave. This facility is a center for various health service activities, but it also contains many administrative, janitorial and non-health service professionals. The following institutions:

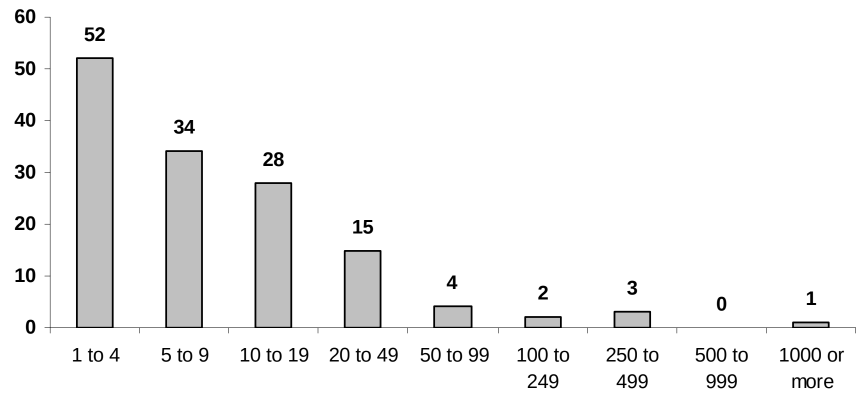
Cambridge Health Alliance,
Somerville Hospital CU,
Somerville Pediatric Associates,
Somerville Women's Health Center,

as well as, a wide collection of independent doctors' offices and professional health service providers employ over 450 people.

15. The majority of Health Services establishments in Somerville are small in size, employing fewer than twenty people.

Somerville Hospital is atypical of health services firms. Out of the 139 firms of this type in the city, 114 (over 80%) of them employ between one and twenty people. Smaller firm size is partially due to the types of subsectors that are prominent among health service firms in Somerville (primarily physician and dentist offices and various care services). Limited availability of large office space and the specialized nature of the health industry in general also play a part.

Somerville Health Service Firms by Size (# of employees)



CENSUS, 2006

Type of Firm (4-digit NAICS)	# of firms
Offices of Dentists	25
Offices of Other Health Practitioners	20
Individual and Family Services	19
Residential Mental Health Facilities	16
Outpatient Care Centers	12
Child Day Care Services	12
Offices of Physicians	8
Other Residential Care Facilities	6

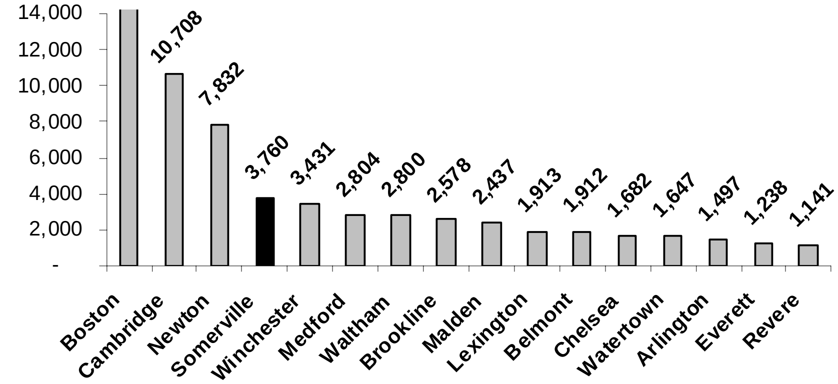
Source: SOURCE: BLS, 2007

16. Somerville is a regional leader in Health Services employment. Only Boston, Cambridge and Newton have more employees in this sector.

Health Care and Social Assistance Services is the largest employing industry sector in Somerville where it has one of the largest employment levels besides Boston, Cambridge and Newton. As the health services capital of the North East, Boston dwarves the other urban core communities. Although Cambridge and Newton also have double the employment levels of anyone else besides Boston, Somerville leads the second tier of urban core cities.

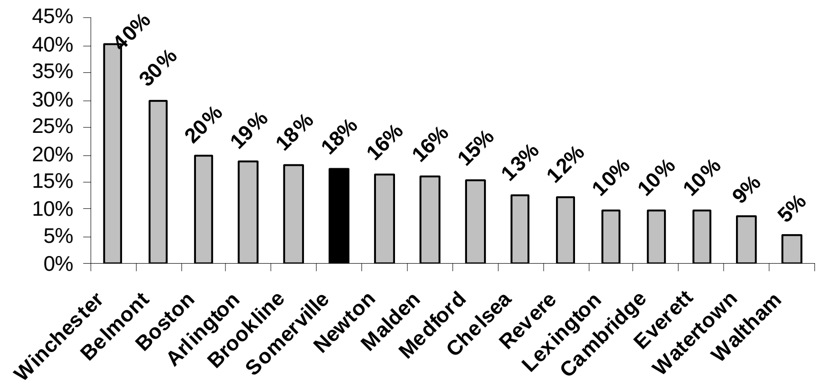
As a share of total employment, Somerville is also in the top third of urban core cities. The other cities with high shares of health services employment, Winchester, Belmont, Boston, Arlington and Brookline are all areas that are associated with good urban amenities and high quality of life. Access to quality health care services is a critical component to this character.

Health Services Employment

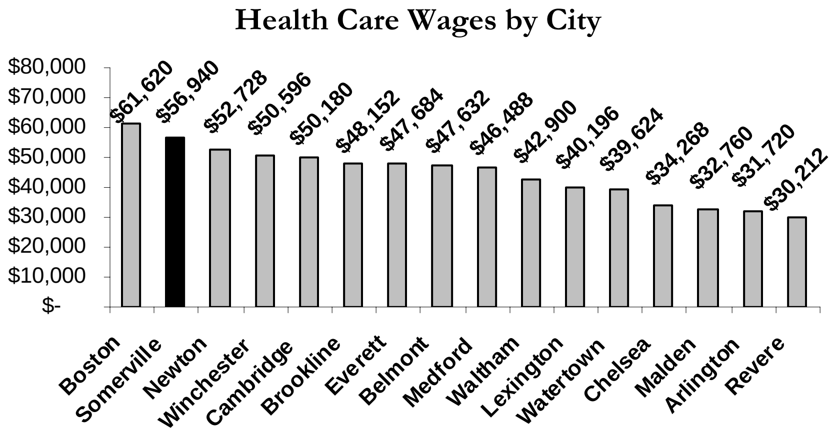


Source: SOURCE: BLS, 2007

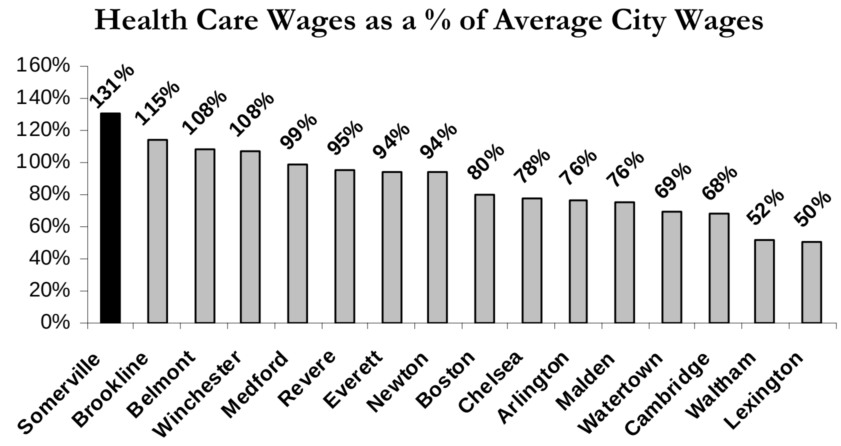
Health Care Employment as a Share of Total Employment



Source: SOURCE: BLS, 2007

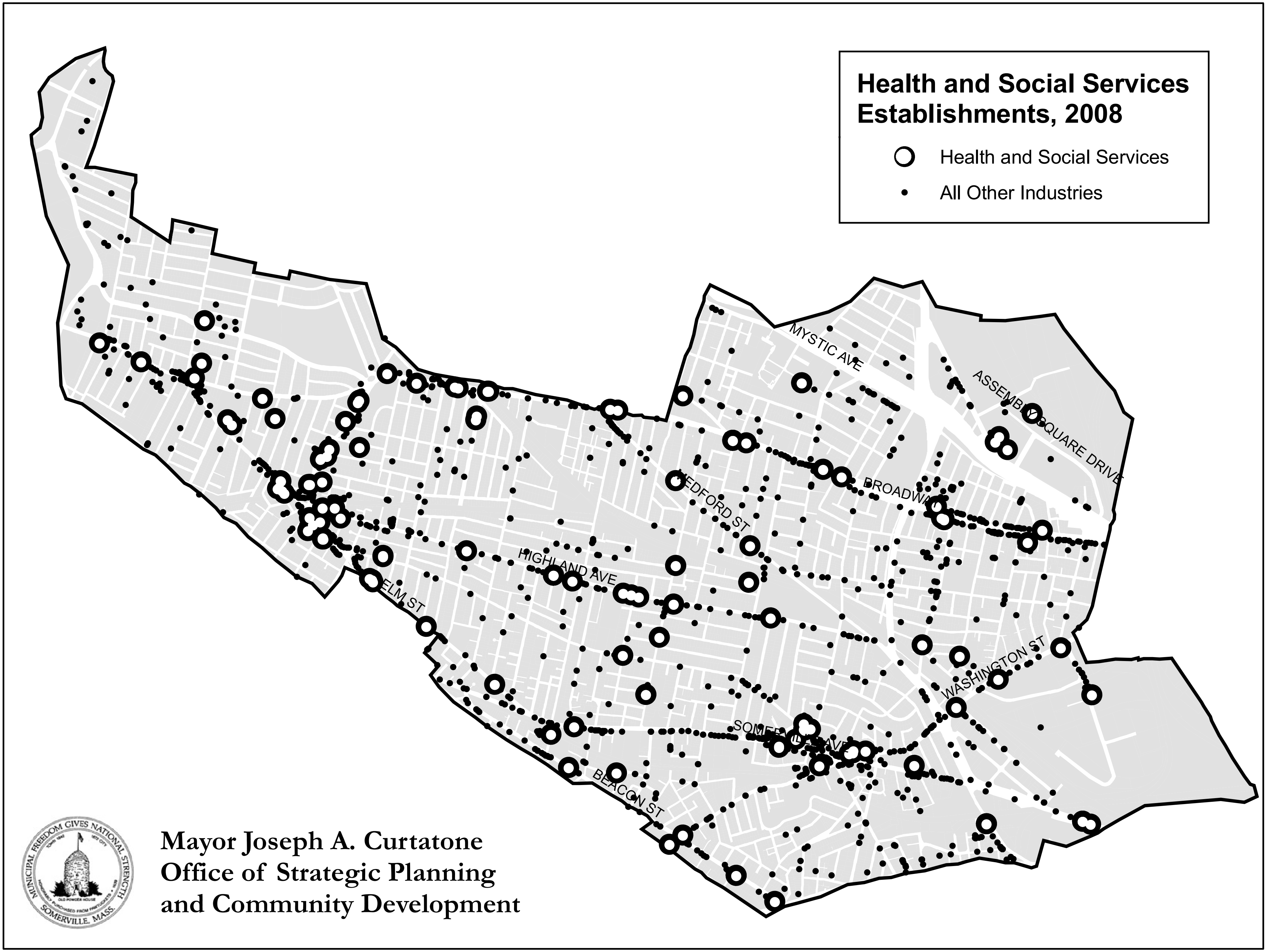


Source: SOURCE: BLS, 2007



Source: SOURCE: BLS, 2007

Somerville's Health Care wages are 31% higher than the City average. Somerville's health care wages, at 131% of the City average, represent the largest margin in the Urban Core. This intimates that the jobs in this sector offer the best opportunity for high wage potential for area residents.



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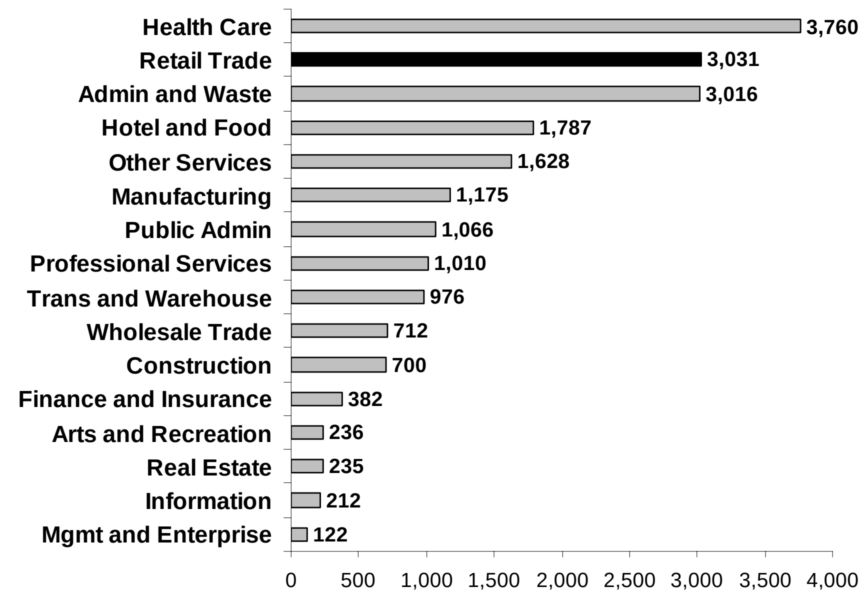
RETAIL SERVICES

The second largest sector in Somerville is Retail Services. The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and non-store retailers. NAICS characterizes this distinction as follows:

Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. These include establishments, such as office supply stores, computer and software stores, building materials dealers, plumbing supply stores, and electrical supply stores. Catalog showrooms, gasoline stations, automotive dealers, and mobile home dealers are treated as store retailers.

In addition to retailing merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronics and appliance stores, and musical instrument and supplies stores often provide repair services. As a general rule, establishments engaged in retailing merchandise and providing after-sales services are classified in this sector.

Somerville Employment by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

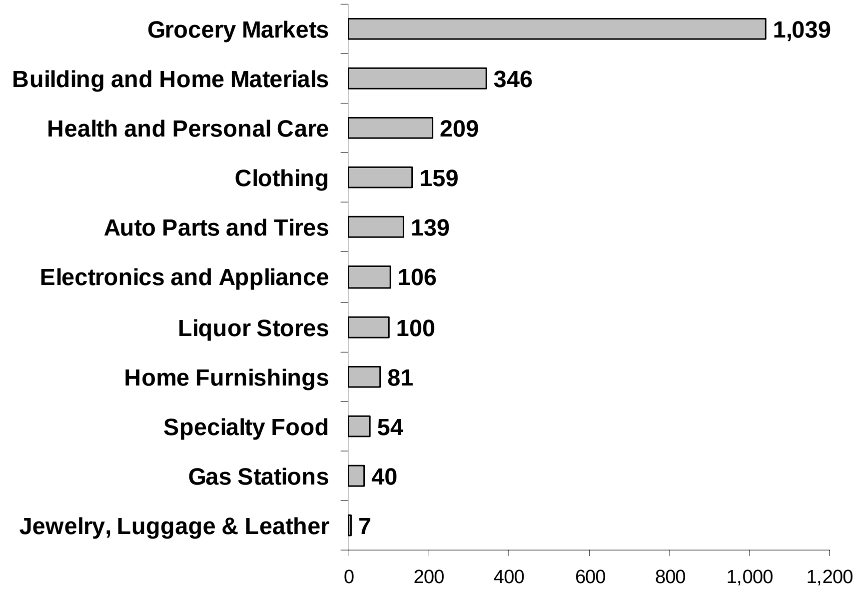
After delineating between store and non-store retail activities, sub-sectors are typically based on the following criteria: (1) the type of merchandise line or lines carried by the store (for example, specialty stores are distinguished from general-line stores), (2) the trade designation of the establishments, (3) capital requirements in terms of display equipment, (4) human resource requirements in terms of expertise.

Non-store retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this sub-sector reach customers and market merchandise with methods, such as the broadcasting of "infomercials," the broadcasting and publishing of direct-response advertising, the publishing of paper and electronic catalogs, door-to-door solicitation, in-home demonstration, selling from portable stalls (street vendors, except food), and distribution through vending machines.

17. The primary retail activity in Somerville, in terms of employment, is the sales of grocery products.

Consistent with Somerville's dense residential population and the tendency for households to require low travel times when making food purchases, grocery establishments are ubiquitous to the City.

Somerville Retail Employment (4-digit NAICS) 2007



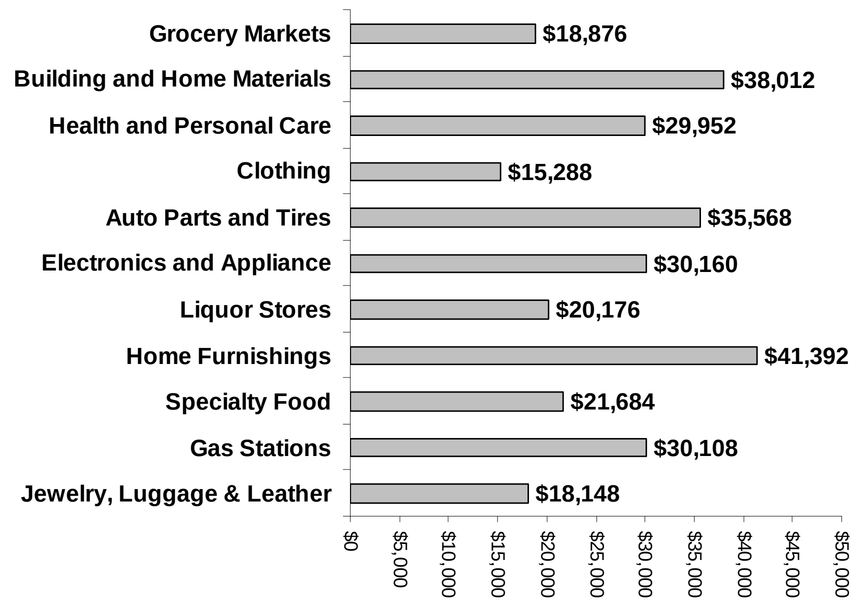
Source: SOURCE: BLS, 2007

The nature of land use in Somerville, residential neighborhoods are often densely packed grids composed of 3-story houses with commercial services at the edges adjacent to more major transportation corridors, combined with limited open developable land for assembling large parcels so that the most common type of grocery retailer is the urban corner market.

18. Grocery market retail jobs are among the lowest paying positions in a sector that contains many low paying sub-sectors.

Grocery market employees in 2007 earned an average of $18,876. While it is important to note that these figures do not reflect full-time hours, this still reflects a miniscule rate of compensation, below the city average and into what are considered poverty levels of income.

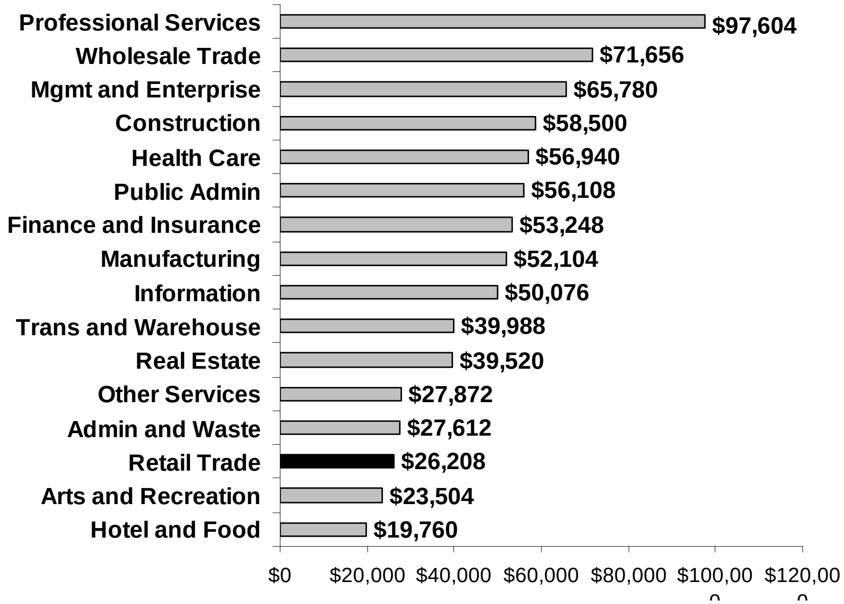
Somerville Retail Wages (4-digit NAICS) 2007



Source: SOURCE: BLS, 2007

When compared with the rest of the 2-digit sectors in Somerville, retail trade is third to last and almost one fourth the level of compensation of the highest paying sector, Professional Services.

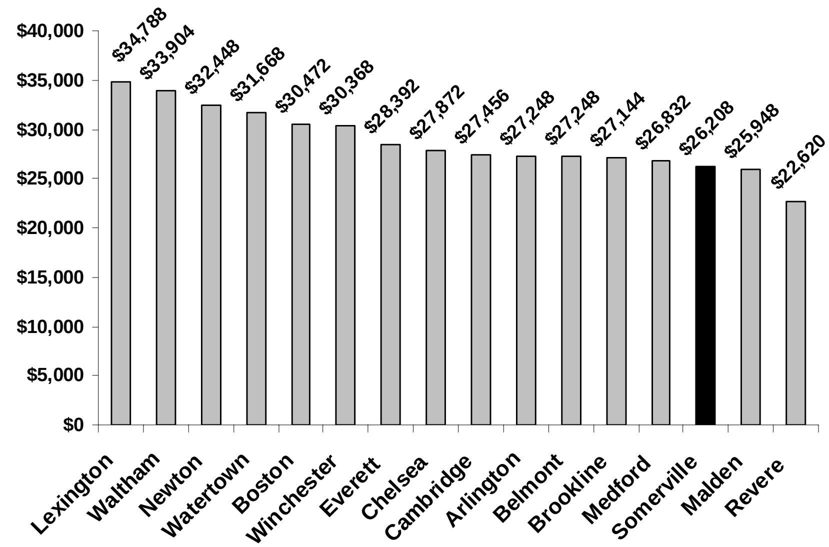
Somerville Wages by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

Not only does Somerville's retail sector compensate workers at a low level relative to other sectors, but it also compares poorly to retail sectors in neighboring towns. Somerville's average retail wage of $26,208 is the third lowest in the Urban Core after only Malden and Revere. This low compensation is likely tied to the composition of retail sub-sectors (above) given the low average wages earned by Grocery Market employees.

UCN Retail Wages (2-digit NAICS) 2007

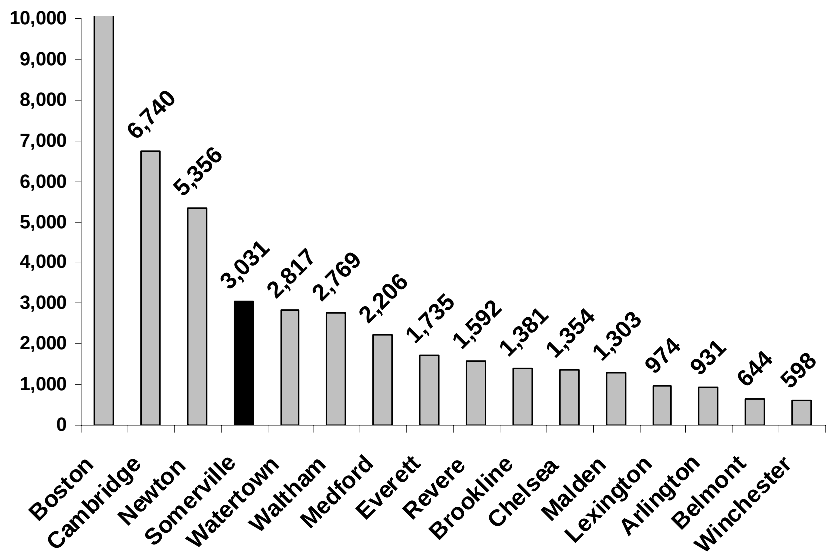


SOURCE: BLS, 2007

There are some considerations that may put these figures in a more positive light. First, since retail establishments are typically small "mom and pop" operations they are prone to using non-traditional accounting practices for the reporting of sales, employees and wages. Especially to the extent that they employee family or friends, the figures for compensation may actually be quite higher. Second, the low labor-skill requirements for many retail positions can mean that young high school and college age people who have not formally entered the workforce typically fill these positions. While this demographic still faces serious financial costs, often in terms of car or school payments, they may have financial support from parents or at least are not supporting dependents themselves. Third, and related to the previous point, is that retail employees are often only employed part-time. One of the shortcomings of the ES-202 data is that it doesn't account for the number of hours worked (it is a weekly survey estimate). Many of the people counted here may have another job, are still living at home with a significantly different lifestyle cost structure, or are currently in training or a higher education program in order to move on from retail work to another, hopefully higher paying, career.

19. Somerville is a regional leader in retail employment.

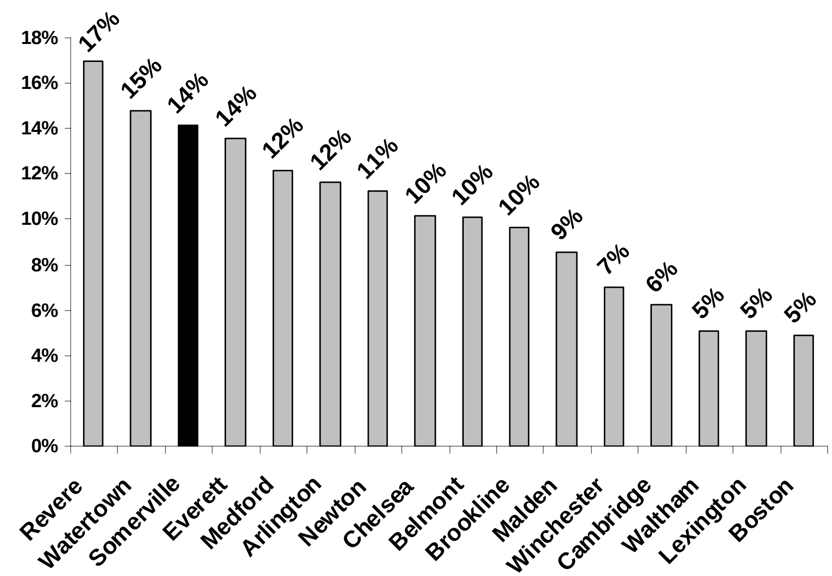
UCN Retail Employment by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

Only Boston, Cambridge and Newton have more retail jobs than Somerville. These three areas have some of the highest concentrations of income in New England. While not directly competing with these neighbors for retail traffic coming from outside the area, that Somerville has the same order of magnitude for retail employment is evidence of a strong local business environment.

UCN Retail Employment (2-digit NAICS) as a Share of Total City Employment 2007



SOURCE: BLS, 2007

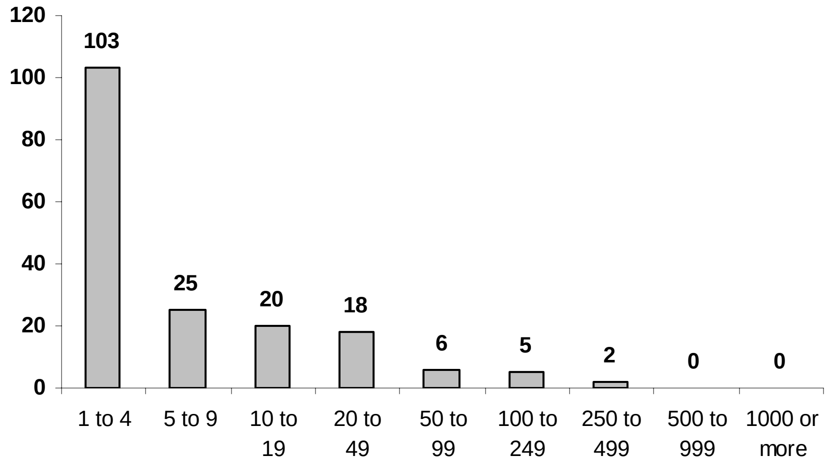
The previous graphic spoke to one of Somerville's strengths, but having retail as a high percentage of local employment can carry negative consequences. As already shown, retail jobs tend to have low wages, be filled by part-time or transient workers and don't require higher level labor skills. That approximately one in seven jobs in Somerville is in the retail sector speaks less to the strength of retail and more to the absence of other strong drivers of local employment.

Retail Establishments by Type	# of Firms
Grocery Markets	38
Liquor Stores	16
Gas Stations	13
Auto Parts and Tires	12
Health and Personal Care	9
Clothing	8
Building and Home Materials	8
Home Furnishings	5
Jewelry, Luggage & Leather	4
Specialty Food	4
Electronics and Appliance	3

Source: BLS, 2007

20. Retail Trade establishments in Somerville are small in size.

Somerville Retail Establishments by Size (2-digit NAICS) 2006



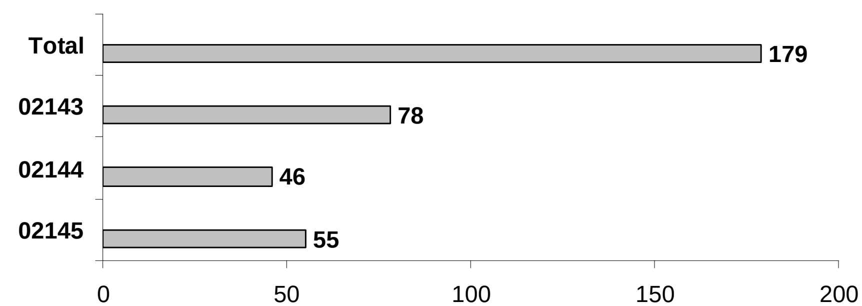
CENSUS, 2006

Of the 179 retail establishments in the city, the large majority (128 or over 70%) of them employ fewer than ten people. Especially since these positions tend not to be full time, it is evident the extent to which these establishments are driven by one of Somerville's economic strengths: small business owners.

Small business owners gravitate to Somerville for a number of reasons. The area's strong residential composition offers a ready market to retailers. Increasingly (see demographic section) these residents are higher income earners. While the income levels are a symptom, Somerville is also evolving as a community with the label 'Slummerville' an outdated fit for an area that mixes highly educated professionals, traditional working class families and edgy creative class types. This combination creates an attractive base of local consumers as well as high-amenity neighborhoods where business owners like to live.

21. The 02143 zip code is home to the largest number of retail establishments. However, retail activity plays a key role in defining the character of a number of squares in Somerville.

Somerville Retail Establishments by Zip Code 2006



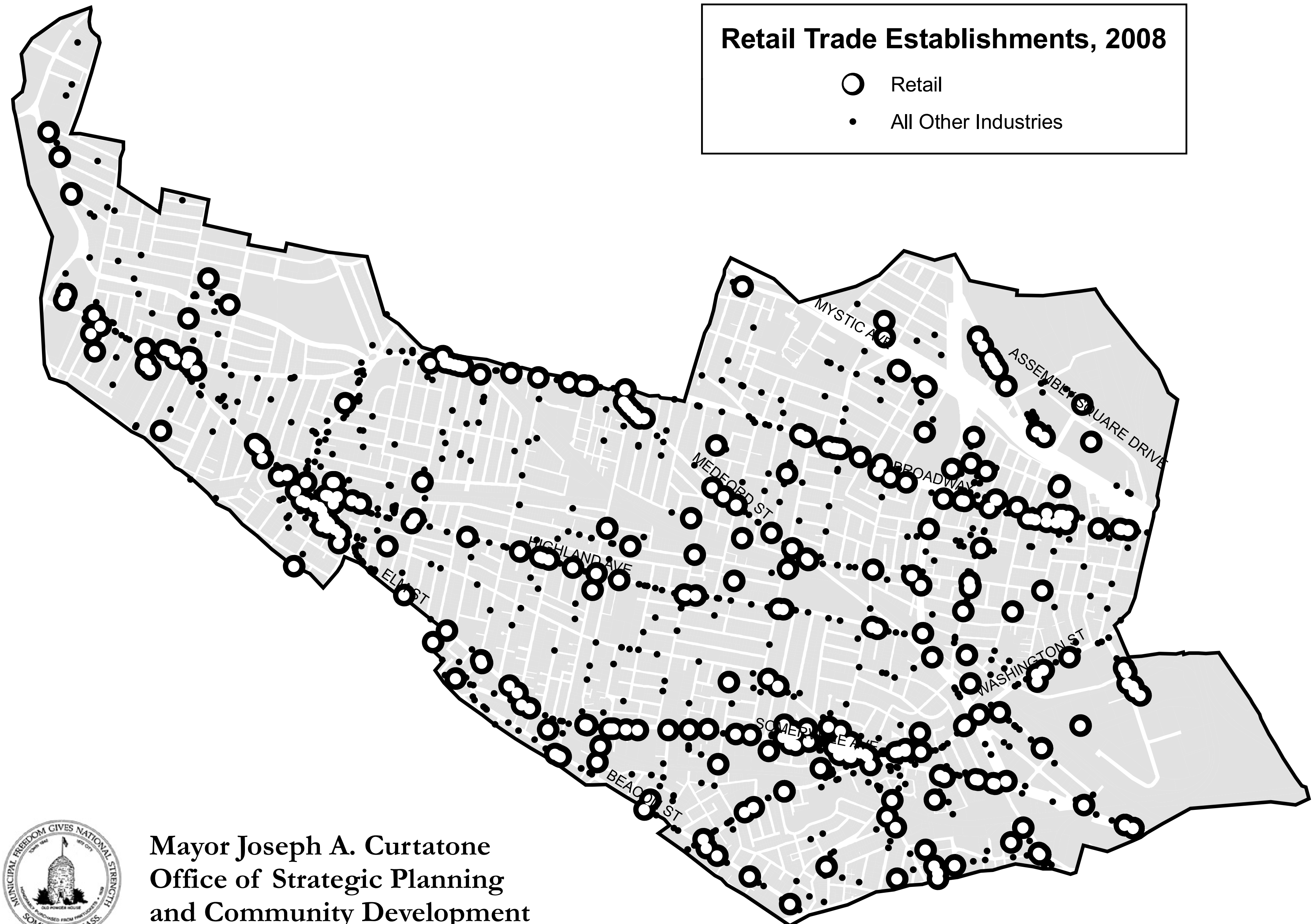
CENSUS, 2006

The County Business Patterns track establishments all the way down to the zip code level. While this is a very fine geographic distinction compared with other economic data, it still fails to depict the nature of retail location in Somerville. The zip code area 02143 may have the largest number of retail establishments, but it includes as many as six distinct commercial areas: Inner Belt, Brickbottom, Boynton Yards, Union Square, Somerville Avenue, Highland Avenue.

Each of these commercial areas can have very different visual character: building stock, street networks, landscaping, different relations to proximate residential areas, and, most importantly, a different mix of business activity. These characteristics are often defined by a number of factors. Historical patterns of a neighborhood can play a large role. Demographic factors can be significant. Infrastructure and the long-term impacts of detrimental land use are illustrated throughout Somerville.

Looking at squares individually is useful for evaluation of a number of industry sectors. However, retail (and later eating and drinking) is especially representative in terms of understanding commercial areas. There are numerous small enclaves of business activity even in a geographically small city like Somerville. Focusing on the three most significant squares in Somerville: Davis Square, Union Square and Lower Broadway shows a good cross-section of area businesses while also demonstrating how the above mentioned factors can have determining and reinforcing effects on a commercial area.

Retail Trade Establishments, 2008



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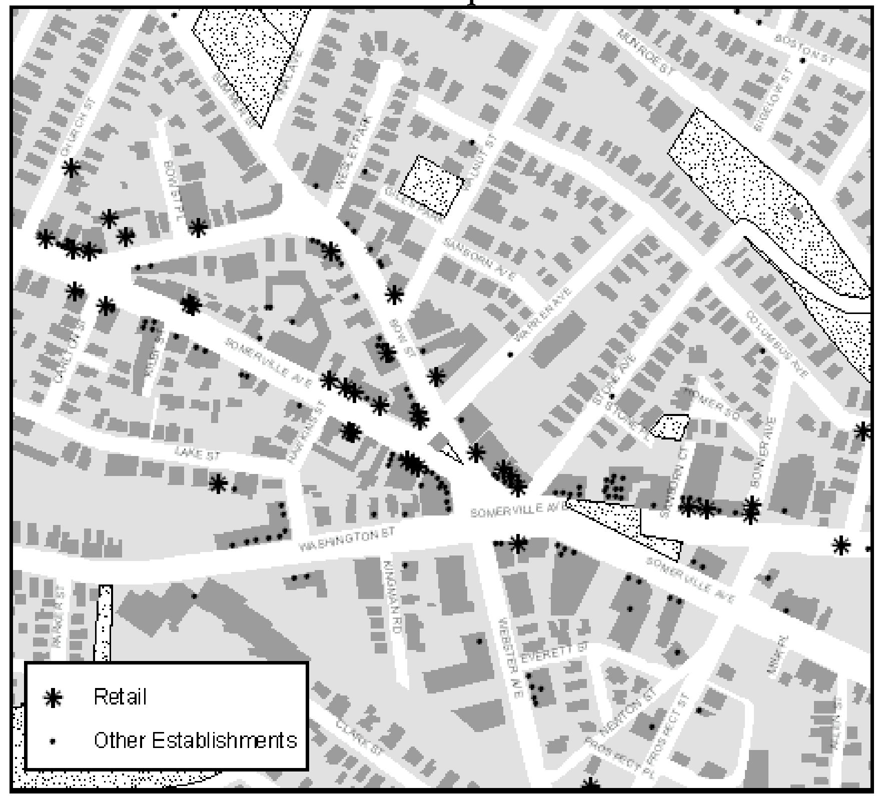
Union Square

While the 02143 zip code does have a number of distinct business areas, Union Square is a vibrant and diverse commercial area in its own right. In past decades, Union Square served as the primary commercial center of Somerville. While this period is retained in some of the square's taller historic buildings, today the area is known for its niche retail and varied selection of ethnic restaurants and markets. The square is also home to a number of key public buildings including the City's Public Safety building and the US Post Office.

There are coffee shops, a bevy of ethnic food and clothing shops, specialty stores, auto retailers and craft markets. Market Basket, Stanhope Framers and L Bornstein & Co. are the largest retail employers in the square.

Union Square

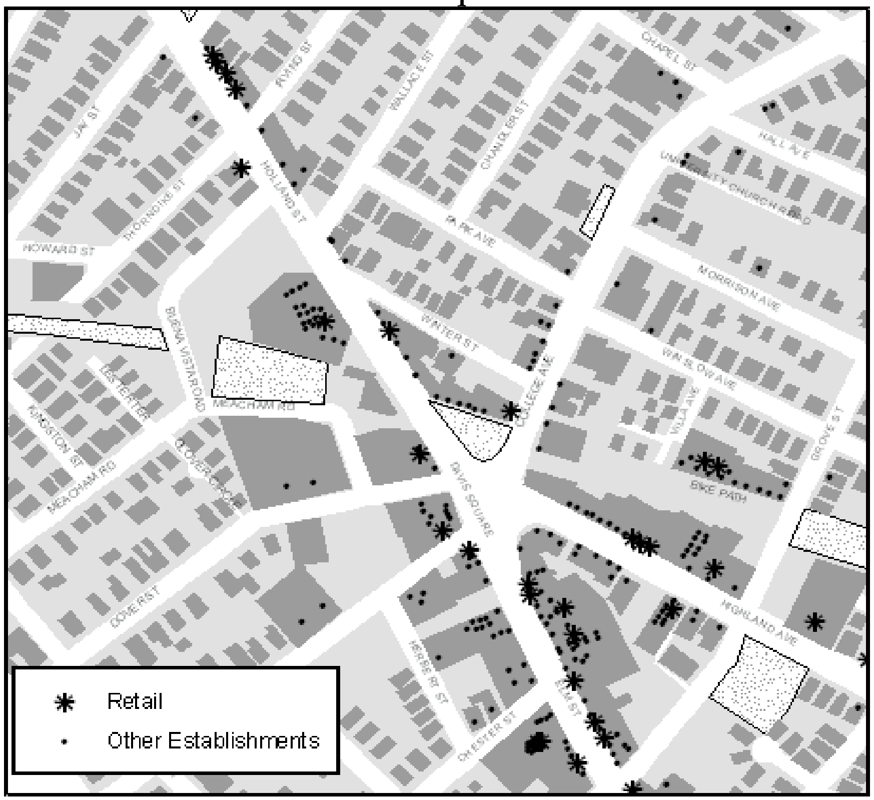


Source: InfoUSA

Davis Square

Davis Square contains most of the retail establishments in the 02144 zip code. While Davis experienced economic hardships during the 70's and 80's it has fully recovered. Billed as the 'Paris of New England' during its emergence in the 90's, it is now home to the highest end retail space in the city. With a stop on the red line (and close proximity to another in Porter), a border with Cambridge and within walking distance of Tufts University, it has the most lucrative catchment area in Somerville.

Davis Square



Source: InfoUSA

The largest retailers in Davis are CVS, Rite Aid and Spotfire Division. These are buttressed by an eclectic, but shrinking collection of boutique stores.

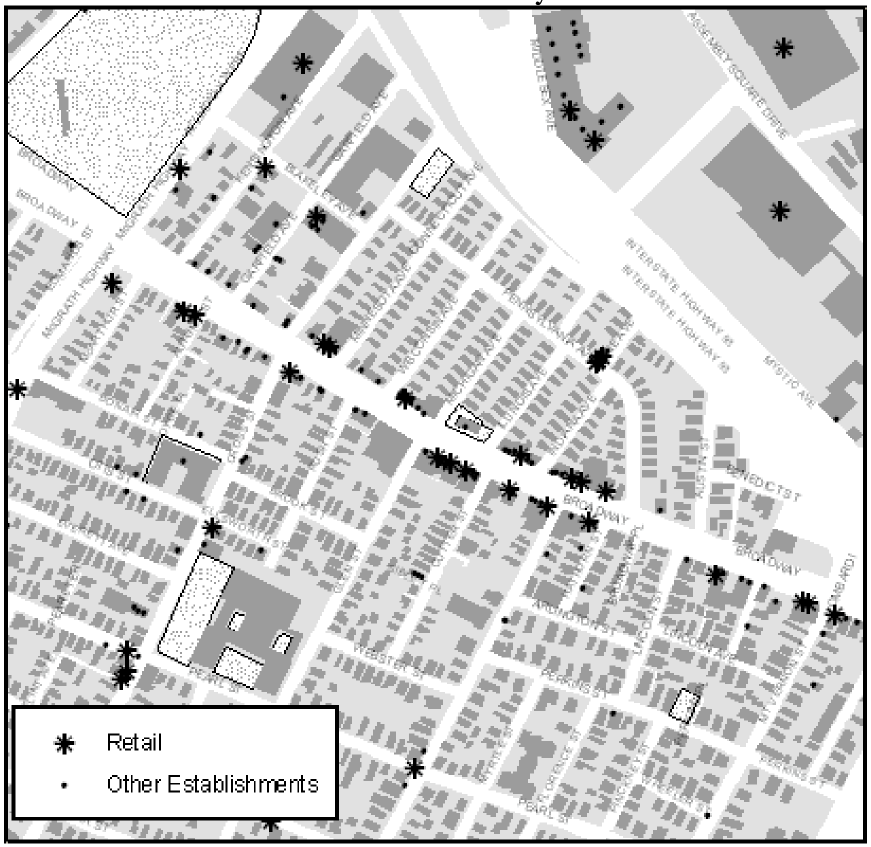
Lower Broadway

East Somerville's character is dominated by major thoroughfares (McGrath and Broadway) that causes the retail areas to be more diffuse compared with Union and Davis. The Lower Broadway corridor is within walking distance of the Sullivan Square station, but has never leveraged this access in the same way Davis has. The area's close proximity to Interstate 93 makes it more dominated by auto traffic (as opposed to pedestrian or transit). This corridor also acts as a commuter route, absorbing traffic from Route 16 and 93, making it more of a pass through for people on their way to Boston. Union Square carries more commercial and trucking traffic (which have some benefit for retailers) and Davis is a destination.

Lower Broadway also competes directly with big box retailers in Assembly Square and those across the river in Meadow Glenn Mall and Station Landing. However, the commercial district consists of a variety of restaurants, specialty stores, and retail storefronts. The largest employers being Unisys Corp, Highland Auto Parts and Deano's Pastacia. Deano's is emblematic of the emerging small business community that has catered to this diverse and growing neighborhood.

There are a number of developments that should bolster this district. Assembly Square demolition broke ground in late 2008 and should see the opening of IKEA in 2010. Rutherford Avenue to the south of Sullivan Station is being targeted by Boston for redevelopment. The improvements to nearby areas should do as much to increase the level of activity in the area as compete with it. New streetscape improvements and rezoning for Lower Broadway will help build synergy with nearby developments, its transit corridor and the wealth of existing businesses.

Lower Broadway



Source: InfoUSA

ADMINISTRATIVE AND WASTE SERVICES

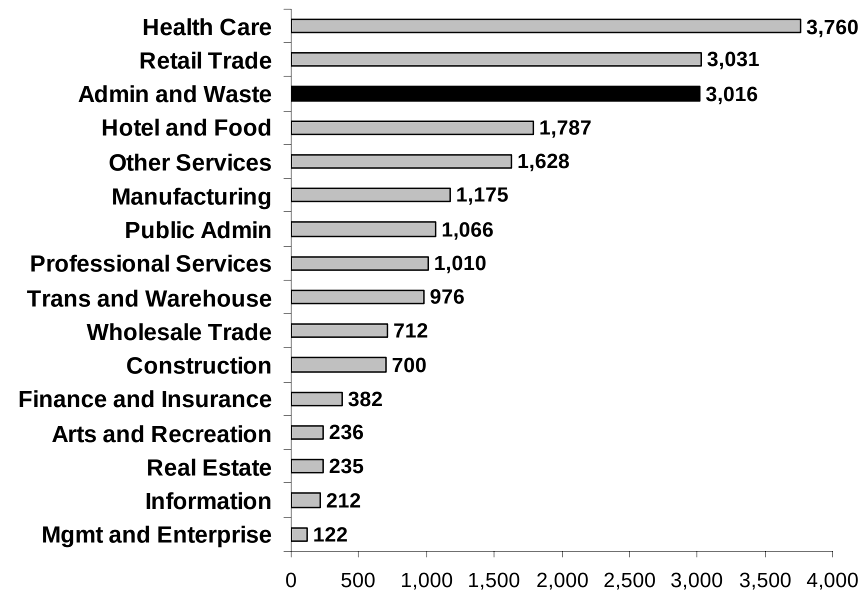
One of the more ambiguously labeled industry sectors, this collection of business activities comprises establishments performing routine support activities for the day-to-day operations of other organizations. These essential activities are often undertaken in-house by establishments in many sectors of the economy. The establishments in this sector specialize in one or more of these support activities and provide these services to clients in a variety of industries and, in some cases, to households.

Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services. The administrative and management activities performed by establishments in this sector are typically on a contract or fee basis. These activities may also be performed by establishments that are part of the company or enterprise. However, establishments involved in administering, overseeing, and managing other establishments of the company or enterprise, are classified in Sector 55, Management of Companies and Enterprises.

The emergence of this type of business activity occurred in parallel with other modernizing trends in business management. Consistent with the maximization of specialization of labor, companies seek to break operations down into efficiently handled tasks. While on the one hand, as mentioned above, companies continue to retain many of these activities internally, on the other hand a large and diverse set of services have been outsourced to firms that handle a specific component (sometimes general, sometimes niche) of a larger operation.

The types of firms classified as Administrative and Waster services are a natural fit for Somerville due to its proximity to Boston. Close access to large firms from other sectors (which rely on these services) and comparatively low costs of operation allow these firms to thrive.

Somerville Employment by Industry (2-digit NAICS) 2007

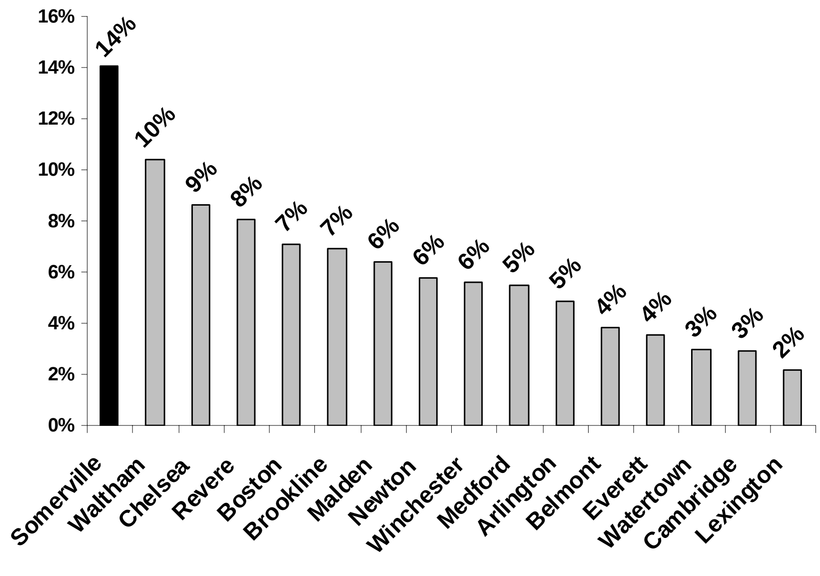


SOURCE: BLS, 2007

22. Somerville has the largest share of Administrative and Waste services in the region and the sector is the third largest employing sector in the City in absolute terms.

Compared with the other cities in the Urban Core, Somerville has the largest composition of Administrative and Waste services at 14% of total employment. This is a sizable increase over the next City, Waltham, which only has 10% of its employment made up of these types of services. The 3,016 employees in this sector make it the third largest in Somerville behind Health and Social Services and Retail. It is worth noting that these top three industry sectors make up almost half of Somerville's 21 thousand local jobs.

UCN Admin and Waste Employment (2-digit NAICS) as a Share of Total City Employment 2007

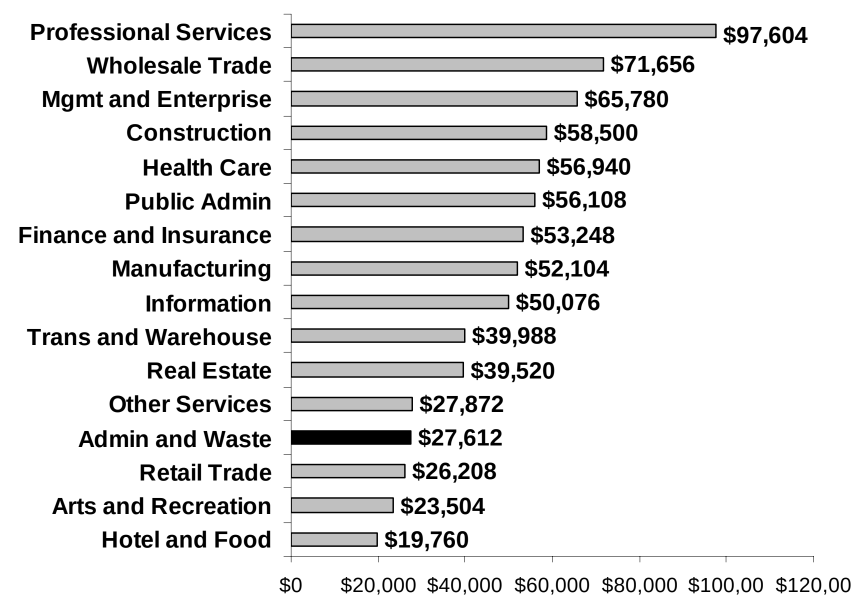


SOURCE: BLS, 2007

18. Administrative and Waste services, like Retail, is a low wage sector.

The administrative and waste services industry offers only marginally higher compensation than retail. The $27,612 annual wage is more than a third lower than the citywide average of $43,524. This compensation is especially low since these positions don't typically have the caveats mentioned about retail positions. Most employees work traditional 40-hour weeks with much of the corporate support services (facility, admin, travel, human resource) mimicking the 9-5 schedule of other professional services. Most likely these employees are supporting their household with a second job, with much lower standards of living, or are being supported by a higher wage earner.

Somerville Wages by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

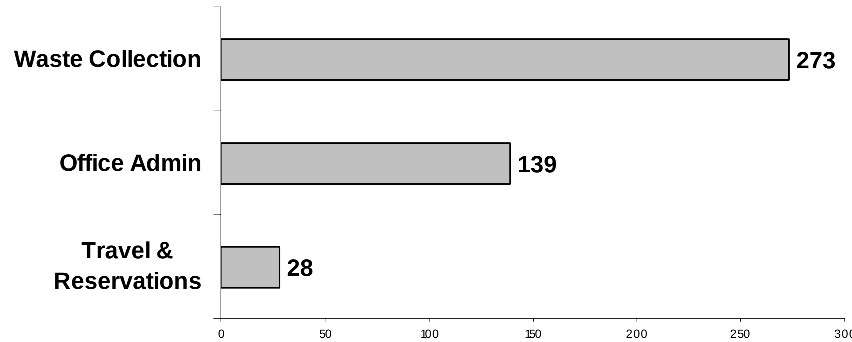
There are subsectors within administrative and waste services that are well compensated. At the 4-digit NAICS level we see that waste collection, office administration and travel reservations all have wage levels above the city average. However, these subsectors comprise only a small fraction (440 of 3,016 or 14.5%) of total employment in this sector.

Somerville Admin and Waste Wages (4-digit NAICS) 2007

SOURCE: BLS, 2007

These are well compensated for different reasons. Waste collection is widely understood as an undesirable line of work. People require higher levels of pay to engage in such physically demanding and uncomfortable work. At a regional level, New England and Boston's transition from manufacturing and blue collar jobs to white collar jobs in finance, education and health services has created a shortage of trained professionals to fill these positions. Office administration, by comparison, commands pay levels much more comparable to professional services positions. Employees in this subsector typically have a college degree, and advanced communication and computing skills. The same is true of travel reservation services, which employ people able to negotiate complicated transportation networks, project manage the logistical aspects of trip scheduling and often support initiatives of higher level managers or executives in organizations of a different sector.

Somerville Admin and Waste Employment (4-digit NAICS) 2007



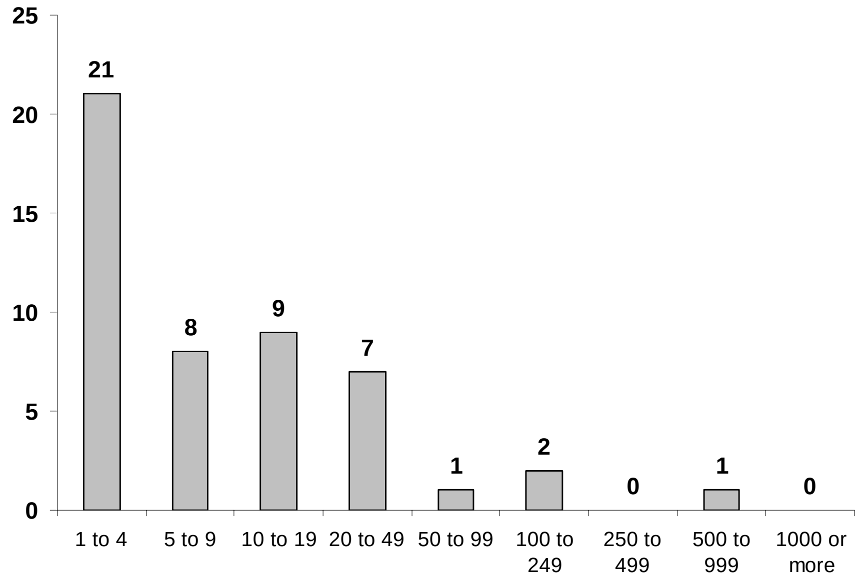
SOURCE: BLS, 2007

23. Administrative and Waste firms are small and are located mostly in the Eastern part of the City.

Administrative and Waste services firms are still almost exclusively small businesses. All but four firms have employment below fifty and the largest category for firm size is 1 to 4. However, this sector does enjoy a slightly higher average firm size compared with the rest of the City. ABM Industries, Diamond Staffing, Fred W Russell & Sons, and Waste Management Inc are all firms with over 50 employees. ABM Industries is notable in that it employs well over 500 people and is one of the largest firms in the City.

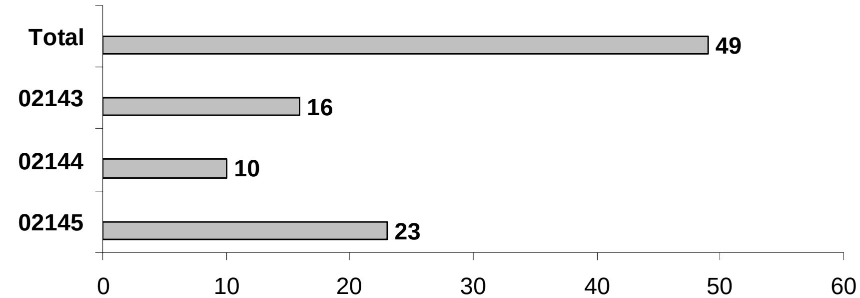
All of these firms are located south of Washington Street in the far eastern corner of Somerville. Again, the combination of transportation access to clients in Boston and Cambridge combines with low rents in these predominantly industrial areas to give a strong competitive advantage.

Somerville Admin and Waste Establishments by Size (2-digit NAICS) 2006



CENSUS, 2006

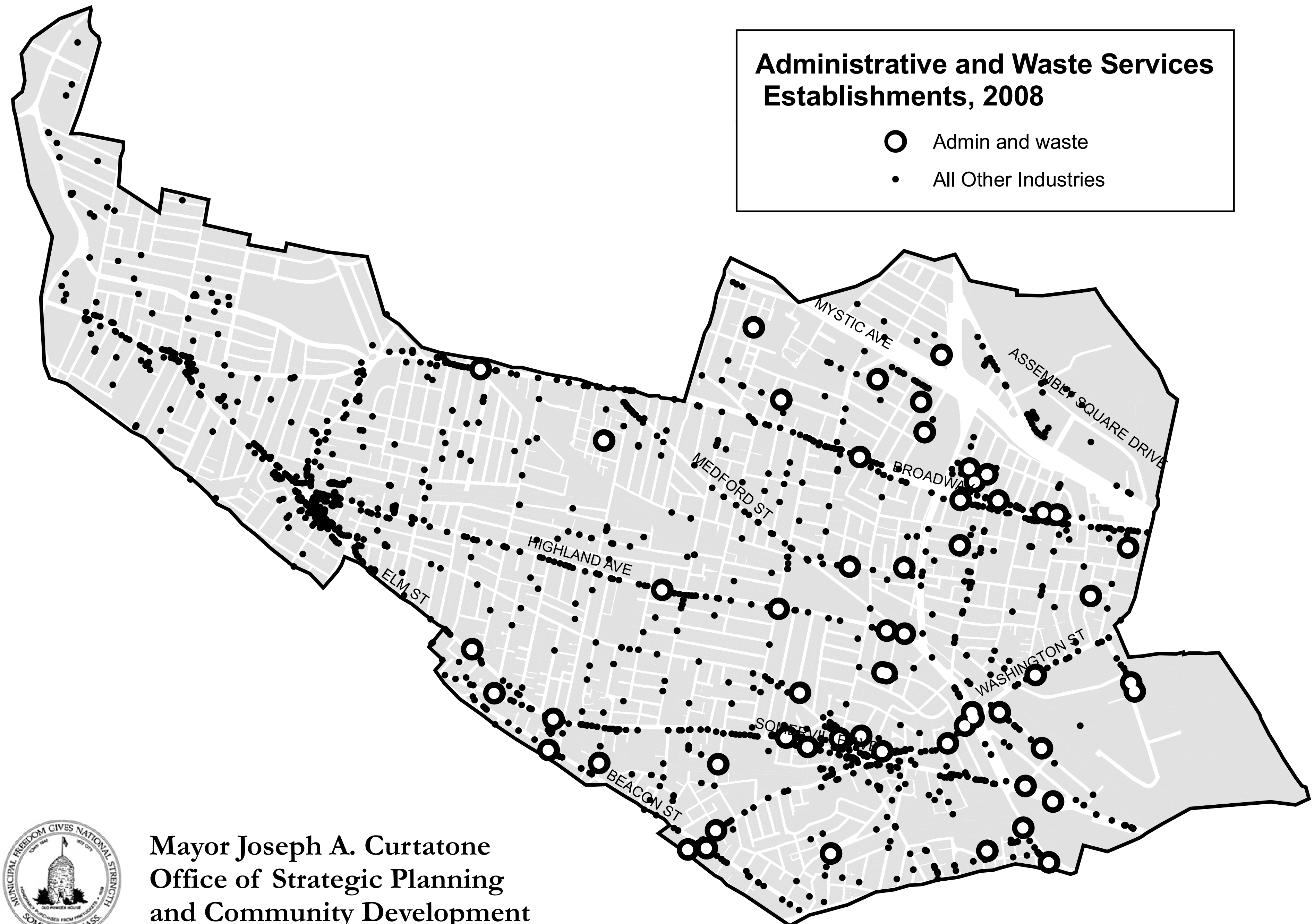
Somerville Admin and Waste Establishments by Zip Code 2006



CENSUS, 2006

The geographic boundaries set by the zip codes in the County Business Patterns are slightly misleading due to suppressions (as is the size of the larger establishments). However, mapping the sector on a citywide map shows the extent to which these types of firms tend to position themselves close to Boston and Cambridge.

Administrative and Waste Services Establishments, 2008



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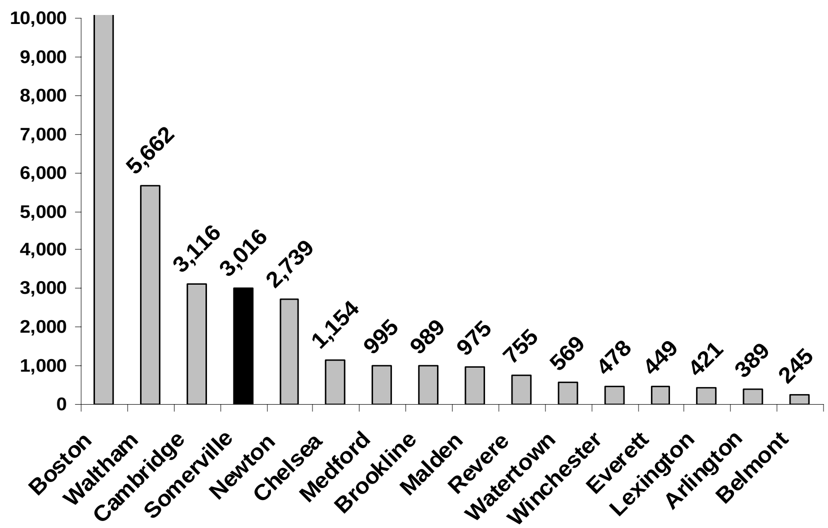
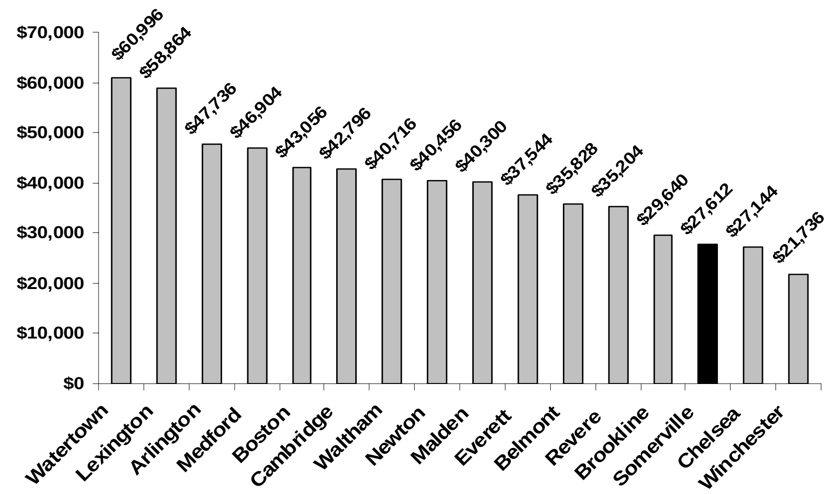
UCN Admin and Waste Employment by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

While not in the same league as the major employing cities in the Greater Boston area, Somerville is three times the size of any of the second tier towns.

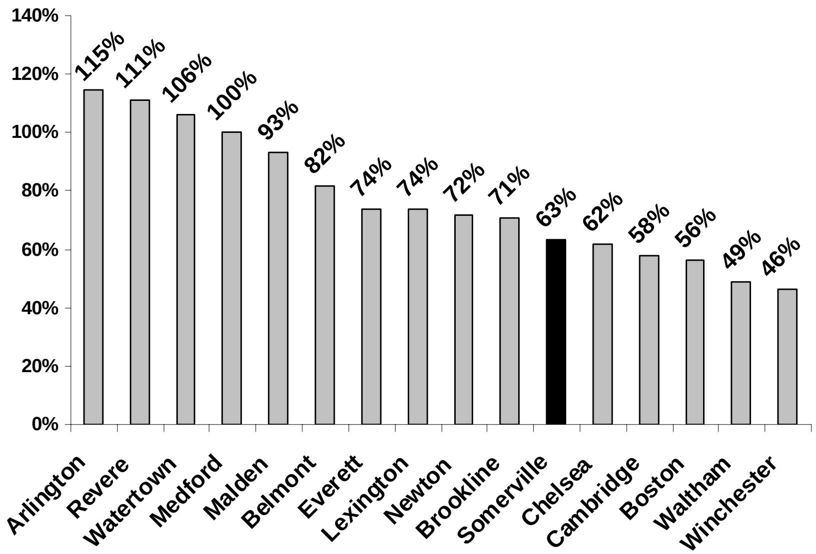
UCN Admin and Waste Wages (2-digit NAICS) 2007



SOURCE: BLS, 2007

However, similar to the retail sector, Somerville's Administrative and Waste sector is one of the least competitive sectors regionally in terms of compensation.

UCN Admin and Waste Wages (2-digit NAICS) as Share of Average City Wage 2007



SOURCE: BLS, 2007

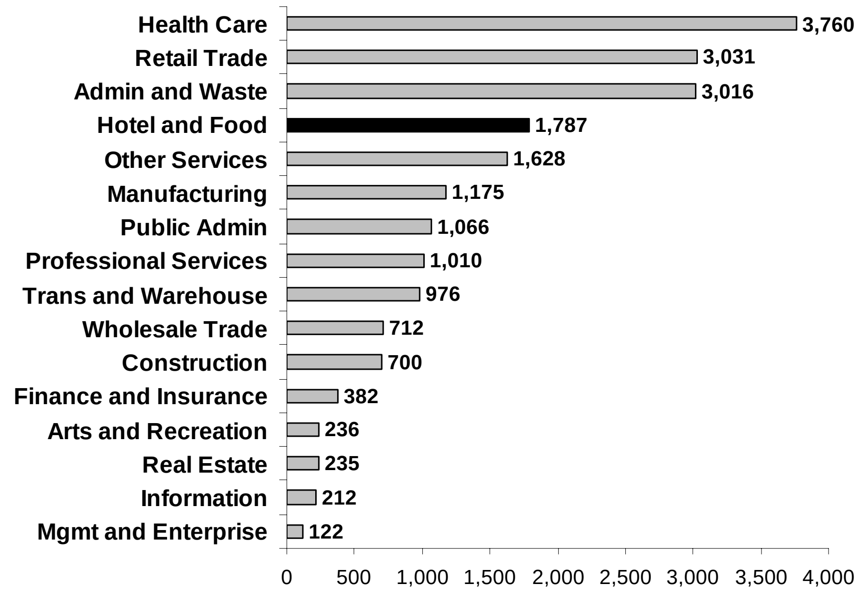
HOTEL AND FOOD SERVICES

The Accommodation and Food Services sector is defined by NAICS as comprised of establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption. The sector includes both accommodation and food services establishments because the two activities are often combined at the same establishment.

More accurately, *Food Services* are often found in accommodation locations. Separately, however, food services are widely found in any commercial area and vary widely on size and type of service. It is also common for food services establishments to be combined with entertainment and recreation activities and to retail activities. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places.

Industries in the *Accommodation* subsector provide lodging or short-term accommodations for travelers, vacationers, and others. There is a wide range of establishments in these industries. Some provide lodging only; while others provide meals, laundry services, and recreational facilities, as well as lodging. Lodging establishments are classified in this subsector even if the provision of complementary services generates more revenue. The types of complementary services provided vary from establishment to establishment. The subsector is organized into three industry groups: (1) traveler accommodation, (2) recreational accommodation, and (3) rooming and boarding houses.

Somerville Employment by Industry (2-digit NAICS) 2007

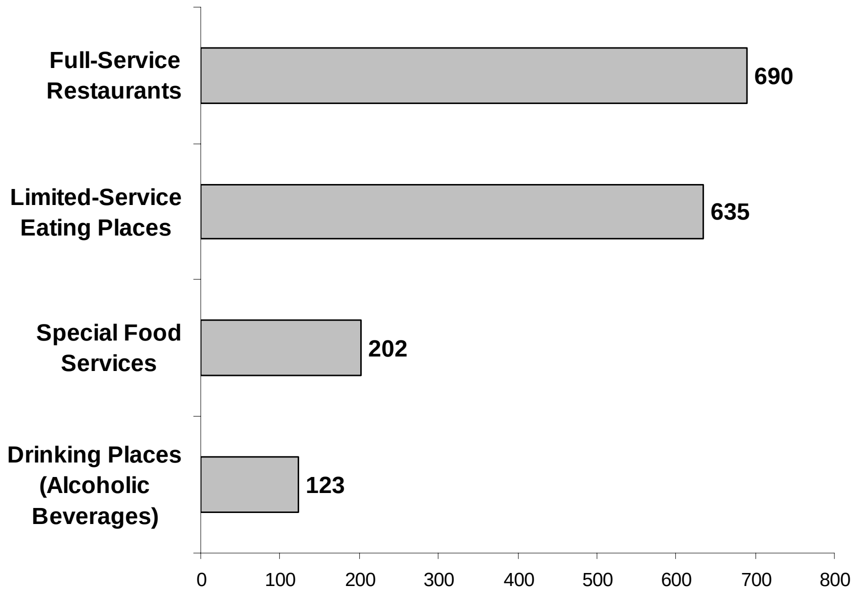


SOURCE: BLS, 2007

24. Hotel and Food Services Sector is almost exclusively made up of food service establishments.

Although the NAICS sector is organized to include both accommodation and food services, employment in Somerville is largely (1660 out of 1787 or 93%) food services. Most of the food services employment is focused in eating establishments with 690 employees in full-service restaurants and limited service eating places close behind with 635 employees.

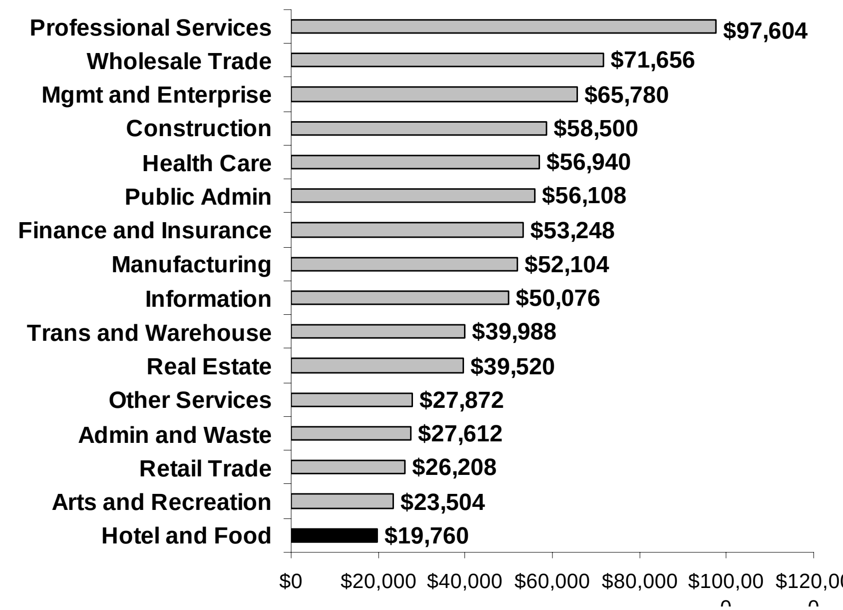
Somerville Hotel and Food Employment (4-digit NAICS) 2007



SOURCE: BLS, 2007

There are only five accommodation establishments in Somerville and they represent less than 10% of the employment for the larger sector. There are two hotels, two bed and breakfast establishments and a hostel. However, Holiday Inn is the largest employer among any accommodation or food service establishment with 110 employees. La Quinta, the other hotel, is in the top ten employers with 40 employees. However, there are currently development prospects to build two new hotels in Somerville. The two locations are on Beacon Street near Porter Square and in Davis Square on a group of underdeveloped parcels either near Day, Grove or the Buena Vista garage. Real estate market analysis suggests that these projects will likely not find funding until capital markets recover.

Somerville Wages by Industry (2-digit NAICS) 2007

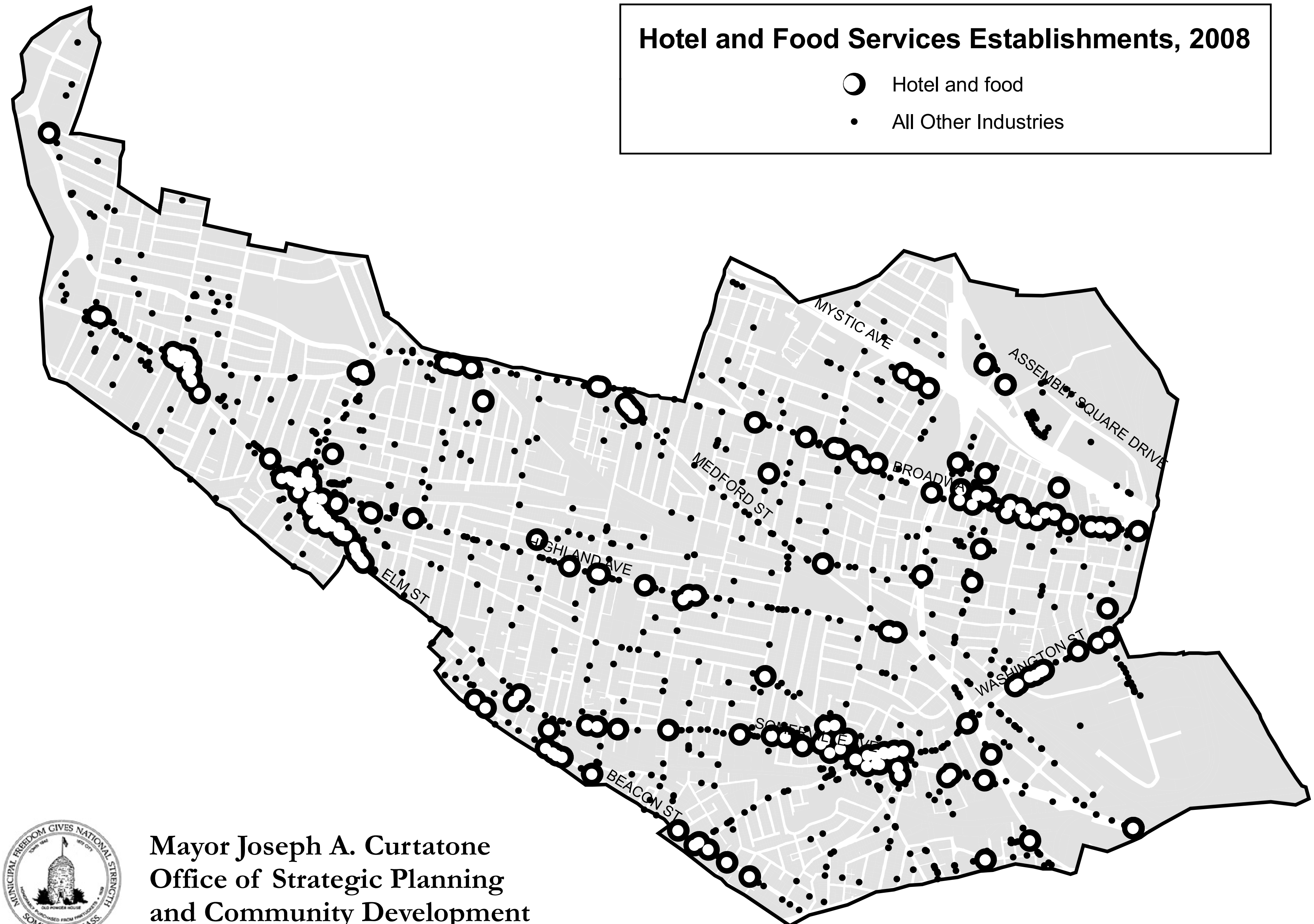


SOURCE: BLS, 2007

25. The food services industry has many parallels with the retail trade sector: a top employer in Somerville, low wage rates, small establishment size, and located primarily in commercial areas and along transportation corridors.

The hotel and food services sector is similar to the retail trade sector in many ways. The food services industry has the lowest average wage in the City of Somerville. At $19,760 annually, it is the only

Hotel and Food Services Establishments, 2008



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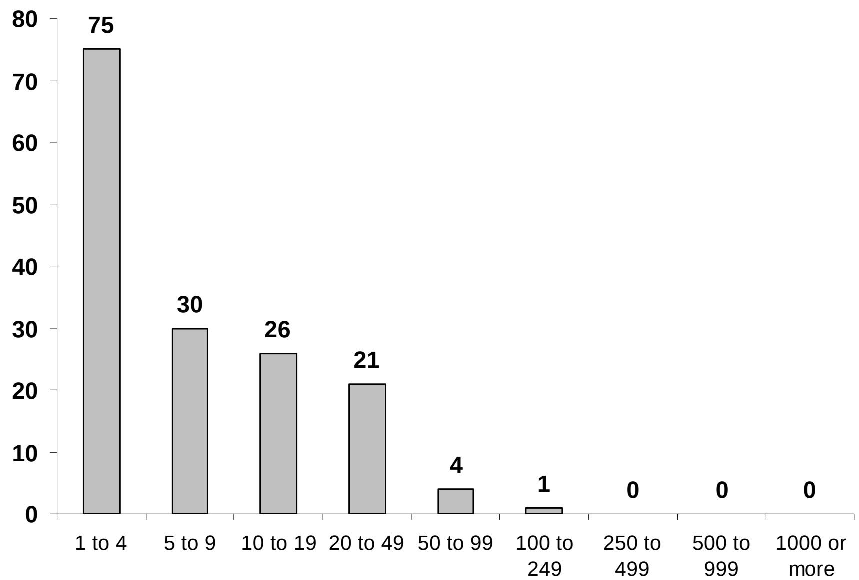
sector with a compensation level that is *less than half* the citywide average.

The median size for establishments in this firm is 1 to 4 employees. There are no large firms in this sector and very few medium size firms (most of which are hotels).

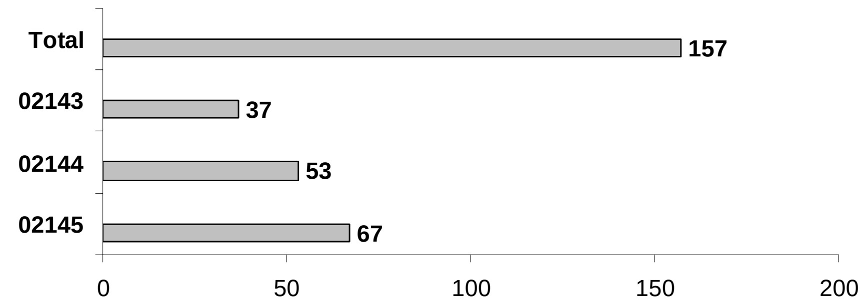
Somerville Hotel and Food Establishments by Size (2-digit NAICS) 2006



CENSUS, 2006

The establishments are located in major commercial squares or along transportation corridors and major streets. This is also true of retail. A pattern that runs counter to other industries in Somerville, food service establishments in Somerville are found with greater frequency in zip code 02145 than in the other two zip codes. Davis Square, dubbed the 'Paris of New England', has established itself, not just in Somerville, but regionally as a destination for restaurants, bars and live music.

Somerville Hotel and Food Establishments by Zip Code 2006



CENSUS, 2006

In parallel with employment, establishments by industry subsector reflect a majority of restaurant and eating places in Somerville.

Hotel and Food Establishments	# of Firms
Full-Service Restaurants	70
Limited-Service Eating Places	71
Special Food Services	10
Drinking Places (Alcoholic Beverages)	12

SOURCE: BLS, 2007

OTHER SERVICES

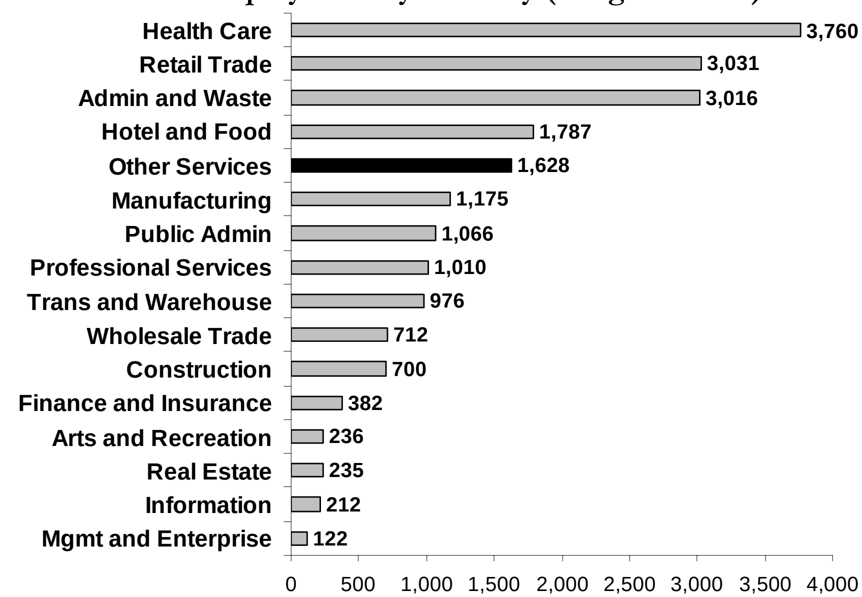
The Other Services (except Public Administration) sector is defined by NAICS as comprising establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as (1) equipment and machinery repairing, (2) promoting or administering religious activities, grantmaking, advocacy, and (3) providing drycleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services. (4) Private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household are included in this sector.

Industries in the *Repair and Maintenance* subsector restore machinery, equipment, and other products to working order. These establishments also typically provide general or routine maintenance (i.e., servicing) on such products to ensure they work efficiently and to prevent breakdown and unnecessary repairs. The NAICS structure for this subsector brings together most types of repair and maintenance establishments and categorizes them based on production processes (i.e., on the type of repair and maintenance activity performed, and the necessary skills, expertise, and processes that are found in different repair and maintenance establishments).

The *Personal and Laundry Services* subsector includes those that provide personal and laundry services to individuals, households, and businesses. Services performed include: personal care services; death care services; laundry and drycleaning services; and a wide range of other personal services, such as pet care (except veterinary) services, photofinishing services, temporary parking services, and dating services. The Personal and Laundry Services subsector is by no means all-inclusive of the services that could be termed personal services.

Industries in the *Religious, Grantmaking, and Advocacy* subsector are defined in terms of their activities, such as establishments that provide funding for specific causes; those that advocate and actively promote causes and beliefs; and establishments that have an active membership structure to promote causes and represent the interests of their members.

Somerville Employment by Industry (2-digit NAICS) 2007

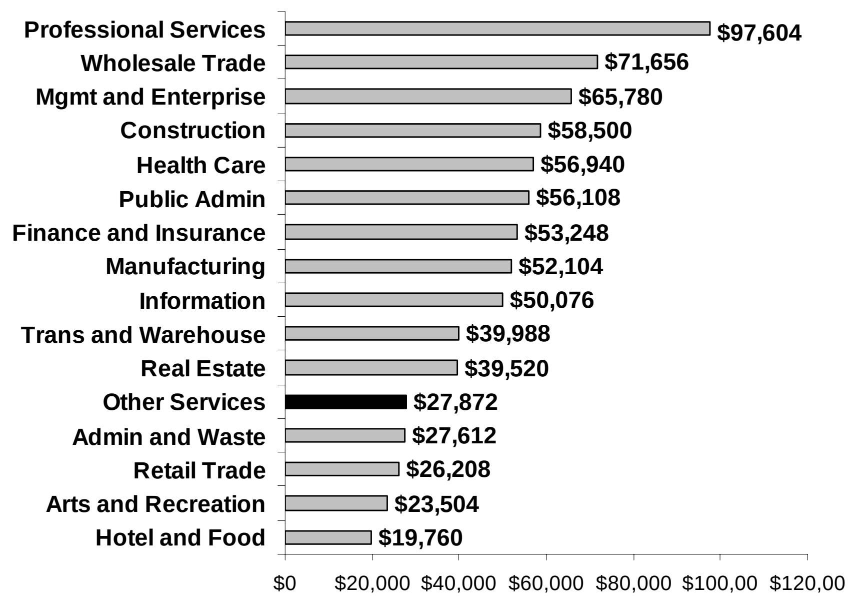


SOURCE: BLS, 2007

Industries in the *Private Households* subsector include private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household. These private households may employ individuals, such as cooks, maids, butlers, and outside workers, such as gardeners, caretakers, and other maintenance workers.

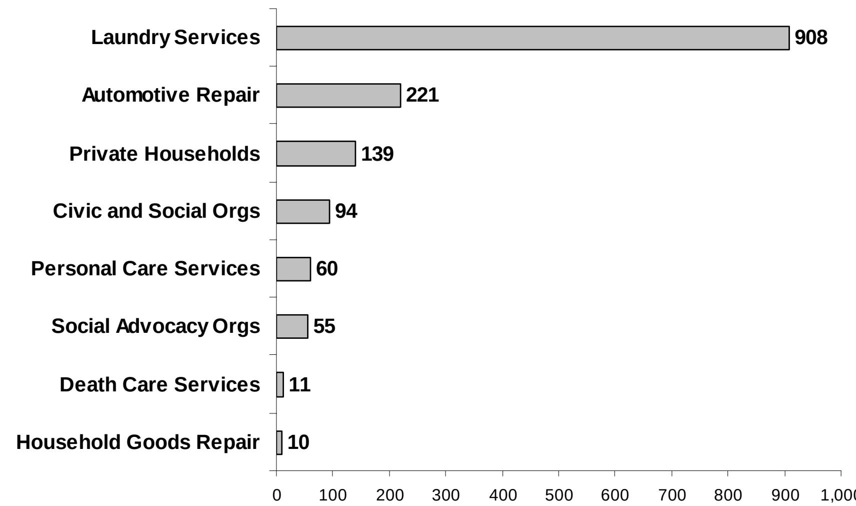
The other services sector is the fifth largest employing sector in Somerville at 1,628 jobs. Along with health care and social services and administrative and waste services, these three service sectors contain a third of Somerville's local employment base. Other Services is more comparable to the administrative and waste services in that it is a low-wage sector.

Somerville Wages by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

Somerville Other Services Employment (4-digit NAICS) 2007

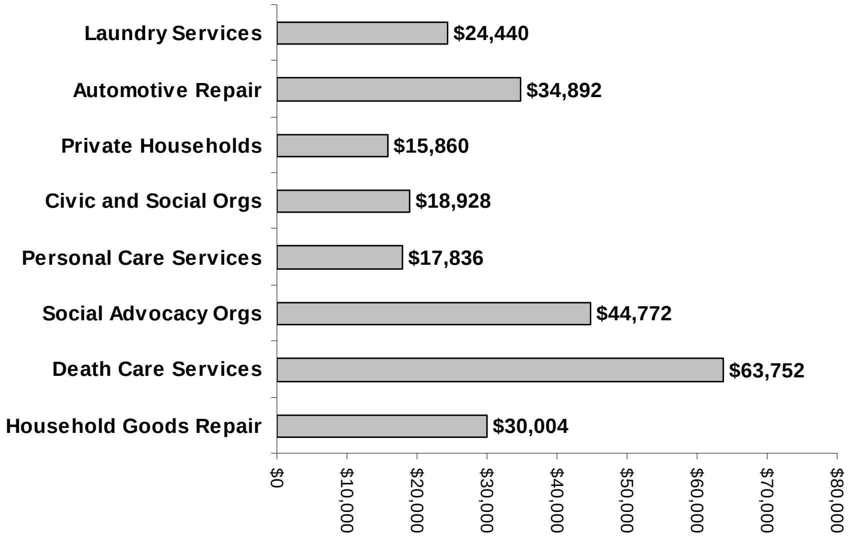


SOURCE: BLS, 2007

26. Other Services employment is primarily made up of laundry and dry cleaning services with 908 jobs. The laundry services subsector has an average annual compensation of $24,440, which is at the low end of an already low paying sector.

Laundry and dry cleaning services employ just under a thousand people in Somerville and represent 56% of the other services sector jobs. The average annual wage for this subsector is $24,440. This is well below the State and City averages and even low compared to the rest of the Other Services sector (which is, itself, a low paying industry). This low compensation is largely attributed to the highly automated nature of the laundry and dry cleaning service which requires little in terms of education or training.

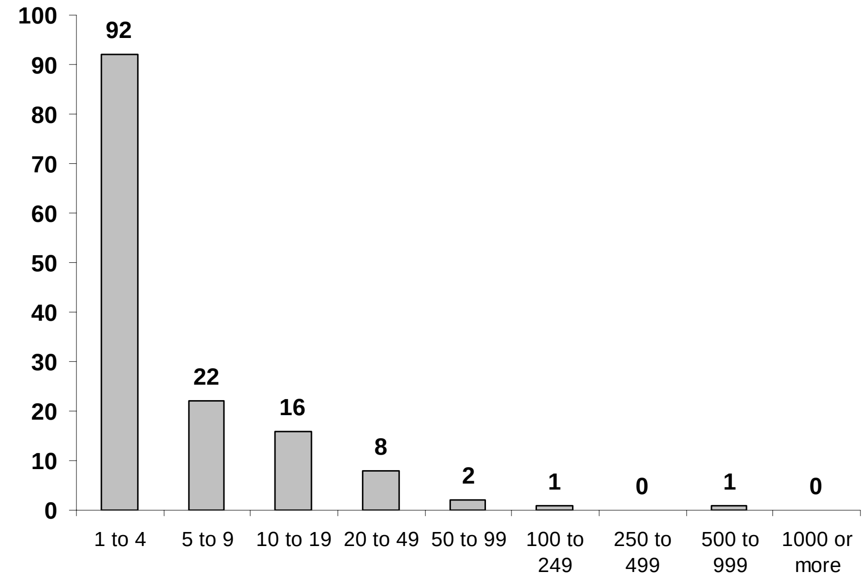
Somerville Other Services Wages (4-digit NAICS) 2007



SOURCE: BLS, 2007

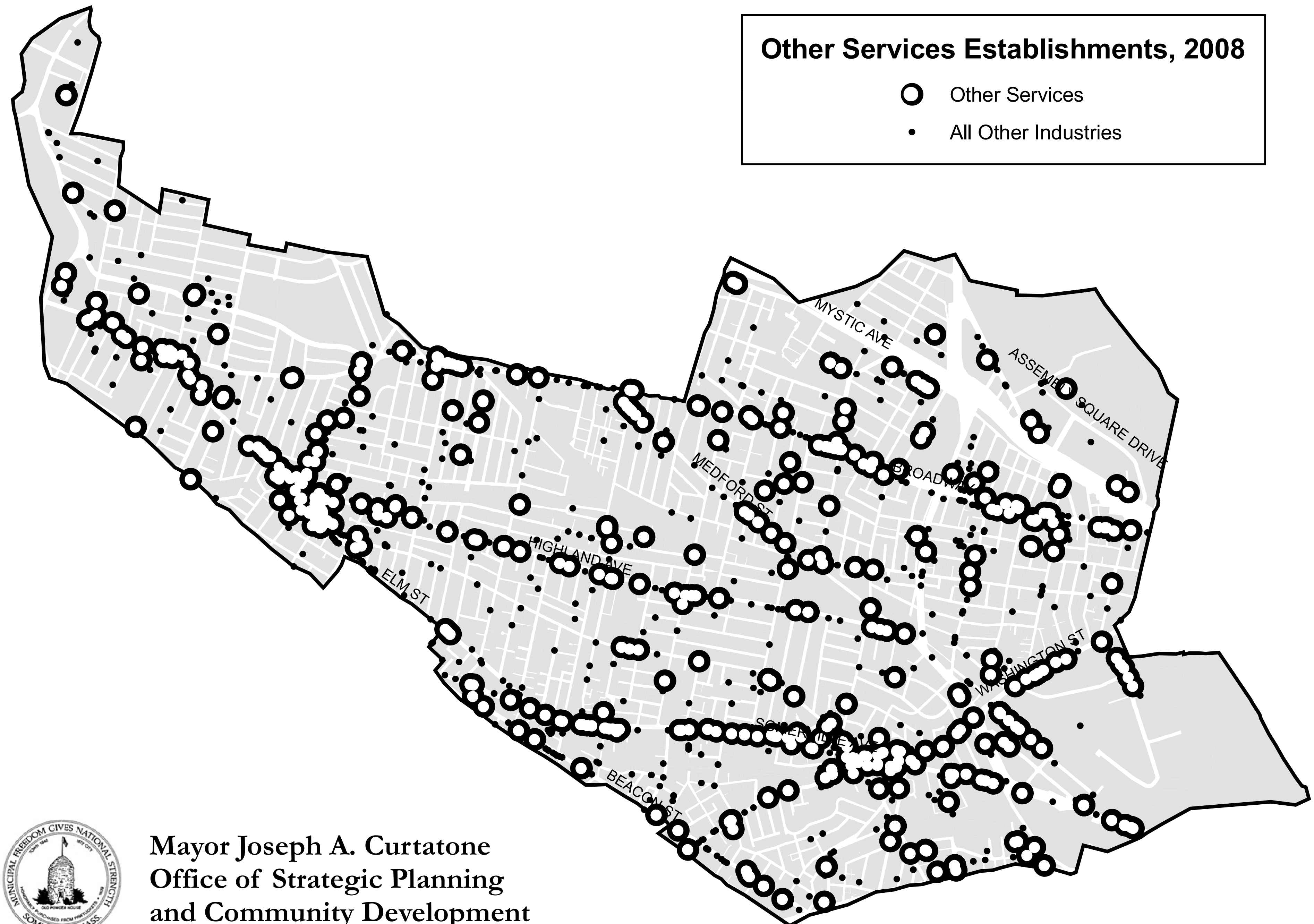
Like most of the other industries in Somerville, other services establishments size trends heavily toward a small number of employees. Four out of five establishments having fewer than ten employees and there are only two with more than 100 employees. Angelica Textiles in Innerbelt is one of the City's largest employers with 700 people and the Visiting Nurses Association of Eastern Massachusetts is the largest non-profit associations in the City with 250 jobs. These instances are the exception in a sector that is composed mostly of smaller laundry service, auto repair and lock smith and non-profit outfits. Illustrative of this contrast is that the average number of employees per establishment in this sector is 11.5, but the mean is only 2.0.

Somerville Other Services Establishments by Size (2-digit NAICS) 2006



CENSUS, 2006

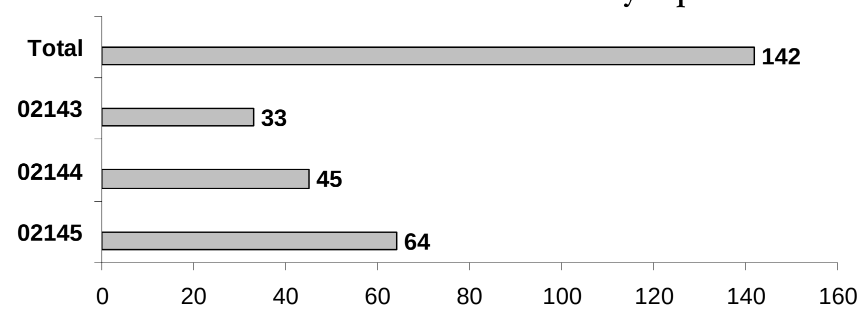
The City-wide map shows that other services establishments tend to locate close to squares and major commercial areas. While this is not surprising given that this pattern is true of most industries in Somerville. However, an interesting division within other services is that the social advocacy and civic and social organizations tend to locate in the main squares while the automotive repair and household goods repair firms tend to locate in east Somerville. Laundry and dry cleaning services can be found both in major squares and along major transportation routes. Finally, households are the only subsector to be located heavily in residential areas.



Mayor Joseph A. Curtatone
Office of Strategic Planning
and Community Development

Evaluating location of establishments by zip code shows that the largest portion of other service firms are located along the Broadway and McGrath corridors in East Somerville in zip code 02145.

Somerville Other Services Establishments by Zip Code 2006



CENSUS, 2006

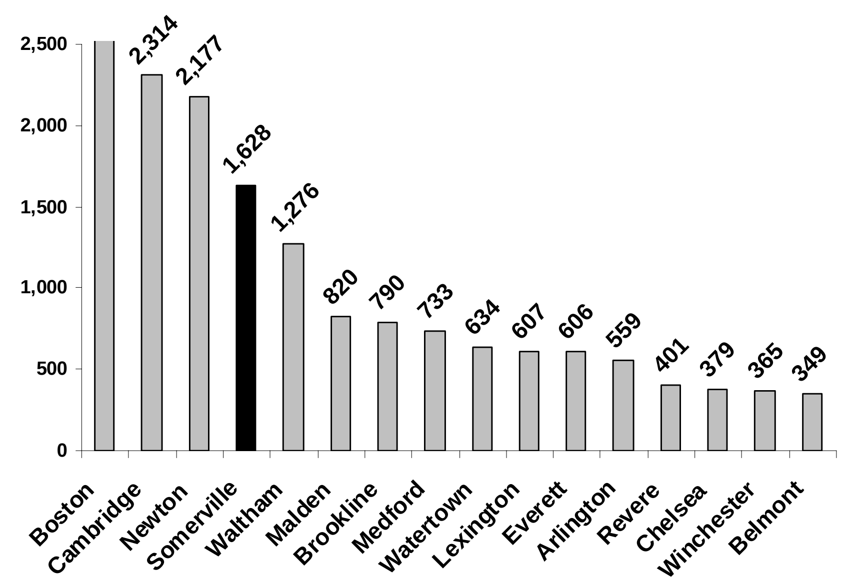
Citywide, most other services firms belong to the subsector of private households, followed next by automotive repair services. Looking back in the report at the breakout of jobs by subsector we notice that these were well behind laundry and dry cleaning services in employment. Here it is important to note that Angelica Textiles represents enormous weight in the employment composition. The data does not infer that dry cleaning and laundry services have, on average, larger establishment size compared with the other two. Instead the data is significantly affected by a single large employer.

The subsector with the lowest number of firms and the second lowest number of employees is death care services. Conversely, the subsector with the highest level of wage compensation is also death care services. This continues an unfortunate pattern for Somerville service sectors where employment activity in the City occupies the subsectors that have the lowest paying jobs.

Other Services Establishments	# of Firms
Private Households	134
Automotive Repair and Maintenance	43
Personal Care Services	19
Drycleaning and Laundry Services	15
Civic and Social Organizations	9
Social Advocacy Organizations	8
Household Goods Repair	6
Death Care Services	4

CENSUS, 2006

UCN Other Services Employment by Industry (2-digit NAICS) 2007



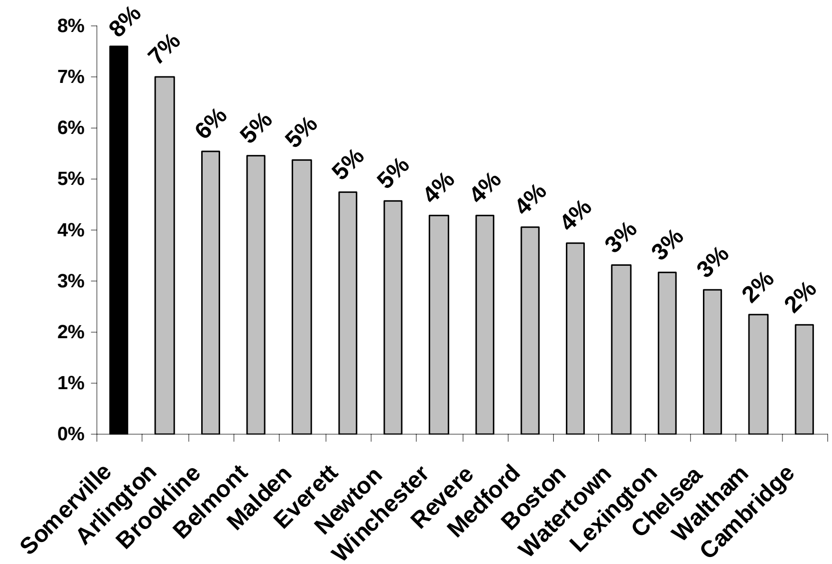
SOURCE: BLS, 2007

27. Somerville has the highest composition of Other Services employment among its Boston Metro neighbors.

Other services employment in Somerville is the fifth largest industry. Compared to neighbors in absolute terms, Somerville places where it typically does: behind the larger neighbors of Boston, Cambridge and Newton, and ahead of the others. However, looking at other services employment as a proportion of total employment, it can be seen that Somerville has the highest with 8%. This means other services make up almost one in every ten jobs in the City and that Somerville has roughly twice the concentration of this type of economic activity compared with the other cities in the area.

There are a number of factors that explain this. First, the combination of a relatively small total employment base and the presence of a single large employer (Angelica's Textile) create a high proportion of this sector. Second, given Somerville's high residential population, it is natural that there is a healthy local supply of household and personal services. Lastly, previous efforts by Somerville were to create a cluster around automobile sales, parts and equipment and maintenance services. Both this initiative and the character of land available in East Somerville have attracted and maintained a higher share of auto maintenance services than would be otherwise.

UCN Other Services Employment by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

VII. BEYOND NAICS

Beyond the five largest employing sectors in Somerville there are four areas of economic activity that are worthy of attention: *Manufacturing, Knowledge Workers, Creative Industry and Non-Market.* These areas are significant to Somerville's economy, but are not easily analyzed under the NAICS classification put forward by the Federal statistical agencies.

MANUFACTURING

Clearly manufacturing is included in the NAICS classification. However, manufacturing has a number of characteristics that make it distinct from the industries covered in earlier parts of this report. Manufacturing, per NAICS, is described as *the mechanical, physical, or chemical transformation of materials, substances, or components into new products*. While this language may not stir the imagination, the manufacturing process and its role in the economy have significant consequences. In the traditional view of economy there are three components required to produce some kind of good or service: capital (land and finance), raw materials and labor. Evaluate how manufacturing is unique in its treatment of each component helps illustrate its importance.

28. Manufacturing has a complicated relationship with local land use, supply chain and labor force.

Starting with capital, the poignant difference between manufacturing activities and most others is the high cost of infrastructure that is needed and the possible effects of the manufacturing process on the surrounding land. Looking at Somerville's history, we can see the enormous amount of factory space and specialized equipment that was needed to operate the Ford Motor Plant. Similarly, the meat packing and tanning operations that lined the Millers River in Somerville (and Cambridge) during the 19th century had transformative effects on ground water and soil quality that still persist today.

Raw materials are the next component in the manufacturing process and one that has experienced drastic changes in the last few decades. Historically, providing raw materials for manufacturing operations was a lucrative business. This meant that having a strong manufacturing base usually had a secondary effect of creating even more supporting businesses in the area. The brick makers of Somerville's past brought in supporting businesses for the mining of clay, shale and sand.

As processes have been refined across the various types of manufacturing, the supply chains for raw materials becomes longer and longer. Improvements to transportation and distribution have also allowed efficiencies in the supplying of manufacturing inputs. The result is more competitive manufacturing practices, but also less local economic benefit from the location of manufacturing firms.

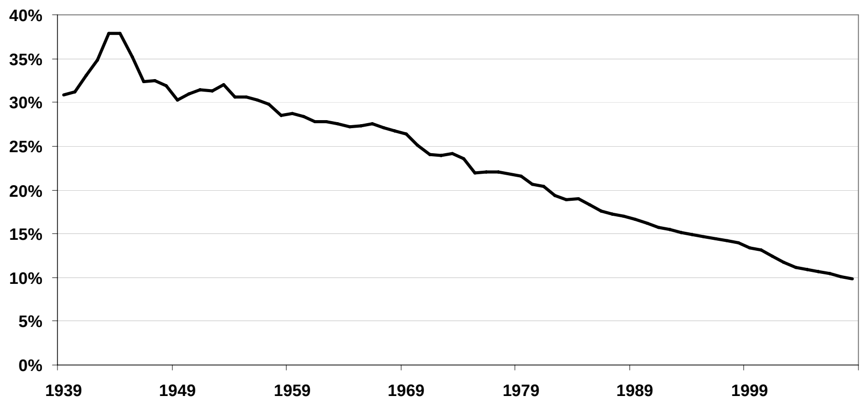
While technology plays a role in all types of economic activity, manufacturing is the sector where innovations from new technology have been most impactful. Specifically, they have repeatedly allowed for further substitution of capital for labor.

Being able to produce more goods with less work (labor) has a number of beneficial side effects. Chiefly it frees people to do other work that may be more interesting and offer better compensation; this presumes they are able to find such opportunity. This presumption is at the heart of what makes manufacturing's evolution one of great contention and why changes (usually losses) in manufacturing jobs are of great political sensitivity.

28. The decline of U.S. manufacturing is misunderstood.

There is a widely held perception that manufacturing decline in the U.S. is largely a product of competition from lower-cost competitors from Asia, starting with Japan in the 1970's. It is often thought that this trend accelerated when a number of countries in Southeast Asia modernized, culminating with China displacing the U.S. as the world's producer of goods. This perspective is largely inaccurate.

U.S. Manufacturing Employment as a Share of Total Non-Farm Employment 1939 – 2008

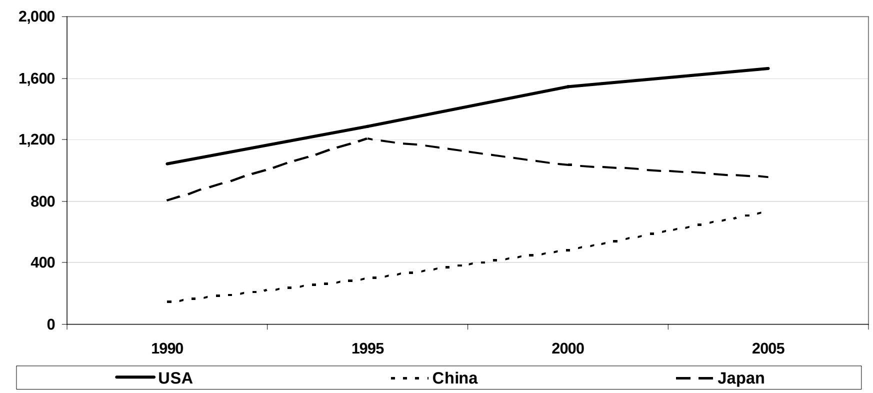


SOURCE: BLS

The decline of U.S. manufacturing has been going on since after World War II and has followed a consistent trajectory (shedding roughly 4% per decade). This loss has been absorbed across a wide array of manufacturing industries, but the pattern is not one of sudden change, but instead, gradual transformation.

Another misconception is that the U.S. is no longer the dominant manufacturer in the world. In fact, the U.S. produces almost double the manufacturing output of its next closest competitor, Japan. While the U.S. has seen its lead in manufacturing output shrink in recent decades, and it is not close to its near monopoly position following World War II, the U.S. has actually increased its lead over Japan significantly in the most recent decade and has kept pace with a rapidly growing China.

Global Leaders in Manufacturing Output (2007 U.S. $)



SOURCE: UN

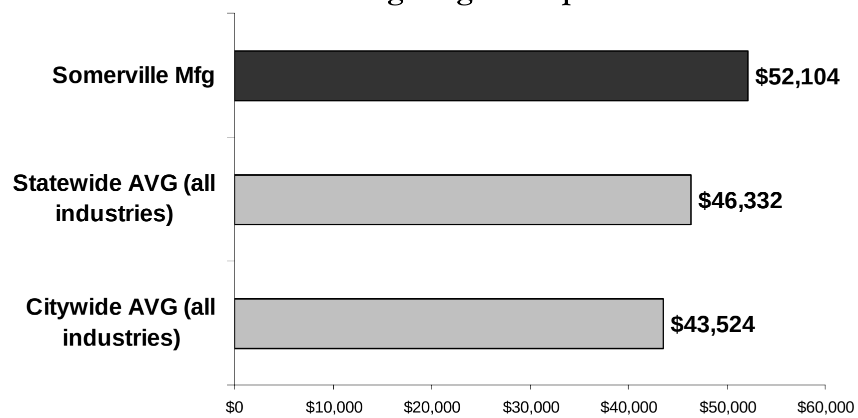
These misconceptions return us to the central dynamic of manufacturing: it is the industry that most adeptly substitutes capital (often in the form of new technology) for labor.

Somerville plays a minor role in this global shift of manufacturing. However, the overall trends are important to understanding how this sector has changed locally. Most importantly, for a City with a small local employment base that includes many low-wage service jobs, manufacturing represents a unique opportunity for sections of the labor force that seek competitive compensation, but that don't have a college degree.

29. Manufacturing jobs are high paying jobs.

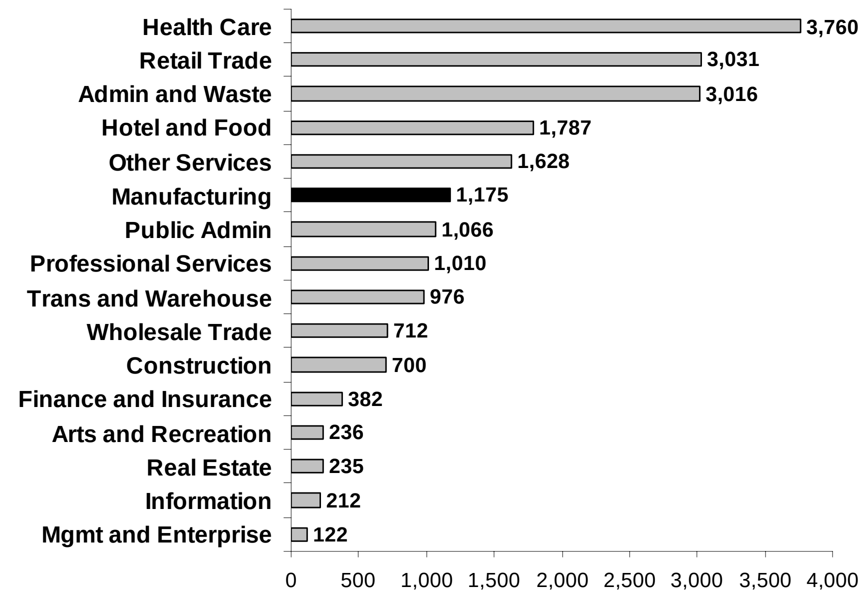
Much of the aforementioned political hand wringing over the loss of manufacturing jobs is exactly because they are good (high paying, highly accessible) jobs. In Somerville manufacturing is the next industry sector, in terms of size, after other services.

Manufacturing Wage Comparison



SOURCE: BLS, 2007

Somerville Employment by Industry (2-digit NAICS) 2007



SOURCE: BLS, 2007

Compared with the industrial giants of Somerville's past, current manufacturing firms are much smaller in terms of number of employees. What they lack in size they make up for in diversity. Additionally, these firms occupy and make useful some of the most limited parcels of land in the City. Finally, in some ways, these firms are surprisingly *green*. Mystic Valley Foundry has contained self cleaning technology for the processing and forging of basic metals. Taza Chocolate uses production techniques that are extremely environmentally friendly. These are examples of a larger movement in manufacturing which is partly a necessity for more streamlined and less wasteful processes and partly a conscious effort toward healthier interaction with the surrounding environment.

KNOWLEDGE WORKERS AND INFORMATION TECHNOLOGY

The idea of the knowledge worker is fifty years old, but it seems to continue to grow in importance. Peter Drucker describes them as:

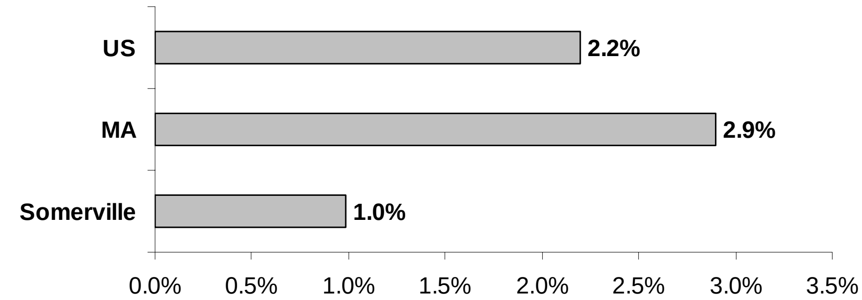
"an individual that is valued for their ability to interpret information within a specific subject area. They will often advance the overall understanding of that subject through focused analysis, design and/or development. They use research skills to define problems and to identify alternatives."

In our current ebb and flow of business life, knowledge workers are well integrated to the point that we take them for granted. However, the success of national, regional and even municipal economies is strongly tied to the ability to attract them. In the same way Drucker appreciated the value of knowledge workers to company success, Richard Florida outlined what factors help create this labor force phenomena:

"for a city to become a magnet for the Creative Class, it must be an example of 'the three 'T's' of Talent (have a highly talented/educated/skilled population), Tolerance (have a diverse community, which has a 'live and let live' ethos), and Technology (have the technological infrastructure necessary to fuel an entrepreneurial culture)"

He also developed an outline definition within the Standard Occupational Classification (SOC) system for quantifying the presence of these types of workers. As of 2000, out of Somerville's 43,677 resident laborers, its creative class, which includes executive, administrative and managerial occupations (5,489), professional specialty occupations (8,747), technician and related support occupations (2,366), precision production and craft occupations (3,256), and high end sales occupations (1,885), comprises a full 50% of the labor force or over twice the average for the U.S. (23.6%).

Information Technology as a Share of Total Employment



SOURCE: BLS, 2007

While Somerville is home to over a thousand (1,010) professional service jobs, it is absent of other 'creative class' industry clusters. Management of companies and, most glaringly, information technology (IT) employment are miniscule. Somerville has half the US average and a third of the State average for IT employment.

There are large and diverse factors affecting the location of IT companies. However, it may in fact not be something Somerville lacks, but, instead, something its competitors have. Cambridge is home to 4,387 IT jobs that comprise a 4.1% of total employment. Notwithstanding a large local employment base, Cambridge has twenty times as many IT jobs as Somerville. Leveraging MIT and Harvard, private/public partnerships and converting ex-industrial space into office space have been instrumental to this development.

CREATIVE INDUSTRY

Similar to the IT field in its reliance on knowledge workers, the creative industry cluster with numerous definitions that tend to include arts and cultural organizations, parts of the creative class and 'industries where innovative and original goods, services, or intellectual property is created'.

In "The Creative Economy: A New Definition" (2007), DeNatale and Wassall go further in this definition to suggest the creative economy exists around a core of cultural occupations and industries that produce and distribute cultural goods, services, and intellectual property, while surrounded by a peripheral circle of jobs and sectors that may be related to production depending on the character of the region and individual enterprise.

At the State level Massachusetts has responded to this growing cluster by creating the Creative Economy department within its economic development arm (MOBD), to join the Mass Cultural Council along with a bevy of quasi-public and private entities to support cultural development. Even for a state rich in creative economy like Massachusetts, Somerville is particularly endowed with a vibrant community of artists, architects, and creative industry workers.

East Somerville is particularly vibrant. The Brickbottom district is a live-work community that has thrived since its inception in the mid 80's. Nearby Union Square is home to a concentration of artisans, design firms, printers, art dealers and architectural services firms. Additionally, Union Square features the programming of Arts Union, an outgrowth of the City's Arts Council department.

Both in regards to knowledge workers and the creative industry, there is a strong interrelationship between the character of residents, the mix of businesses and the way urban environment creates a sense of place. In two different recent surveys have findings that shed some light on how this dynamic occurs. A City run survey found that a majority of Somerville residents self-identify as artists. A survey of creative industry businesses in the area showed that many firms were attracted to Somerville because of its perception as being "on the edge" and possessing both a raw built environment and a diverse, engaging population.

Architectural and Engineering Services

Rank	City	Est. per Sq mile	Establishments
1	Cambridge	21.0	135
2	Somerville	9.3	38
3	Boston	7.9	383
4	Newton	3.7	66
5	Waltham	3.5	44

Specialized Design Services

Rank	City	Est. per Sq mile	Establishments
1	Cambridge	6.1	39
2	Somerville	3.7	15
3	Boston	3.3	160
4	Marblehead	2.9	13
5	Arlington	2.3	12

NON-MARKET

In evaluating economies, a strong focus comes to transactions that involve the exchange of money for goods or services. Often left out of consideration is the large area of activity that pertains to interactions that occur more informally, involve civic or domestic work and that usually don't involve pecuniary remuneration.

There are a wide range of shapes these activities can take. Some of the most common forms are child and elderly care, domestic or household work, community service and civic engagement. All of these phenomena involve 'work' in the most traditional sense. They offer very real and tangible benefits to residents and businesses in Somerville, and yet, they don't involve payment and they aren't tracked in the existing apparatus of economic indicators.

Child and elderly care are certainly supplied by private firms and public organizations, but an enormous segment of the 'market' for care is supplied by friends, neighbors and others who engage in care relationships for reasons other than salary. The work done by the caregiver allows the would-be parent (child care) or relative (elderly care) to engage in wage-paying job. This segment plays a role in improving the allocation of specialized labor in a way that increases participation and overall skill in the local labor force. For households it allows people with high-wage capabilities to capitalize on their opportunities.

Long gone are the post-war years where middle-class families were supported by a single earner with one spouse (almost exclusively the female) responsible for maintaining the household. Especially in high-cost areas like Boston, two incomes are often necessary to afford main lifestyle choices (housing, child rearing, savings). The range of configurations households employ to satisfy combinations of economic and domestic needs is extremely diverse. There are instances of family members assisting with preparing meals, cleaning the house or performing errands. Sometimes renters are offered reductions on rent in exchange for maintaining property or assisting with daily chores. One spouse will reduce hours or possibly reduce salary by working at home in order to fill these roles. As the overall cost of living increases, and households must work hours to maintain lifestyles, the need and value of what are considered domestic work become more clear and important.

Community service and civic engagement have long been a hallmark of American urban life. In Somerville it is hard not to notice the breadth of activity being done in these two areas. There are hundreds of community associations. There are almost one hundred employees in the formal non-profit subsector of other services, but there are thousands of people who commit significant man-hours towards community programs, various causes, giving aid, and specific interests.

Given the historic nature of New England and Boston in particular, the democratic ethos is alive and well in Somerville. Depending on the orientation, these activities can be seen as NIMBY ('not in my back yard'), motivated by special interest, or even blatantly obstructionist. However, residents and interested parties have a responsibility to engage the municipal process and influence policy development. Any frequent attendee to evening town meetings is aware of the 'work' and opportunity cost of time given up in order to inform the process for zoning, education, open space, transportation, parking, and any number of other issues for the sake of a better reflection of community interests.