

Boston's Industrial Spaces

Industrial Land and Building Spaces in Boston and Its Neighborhoods



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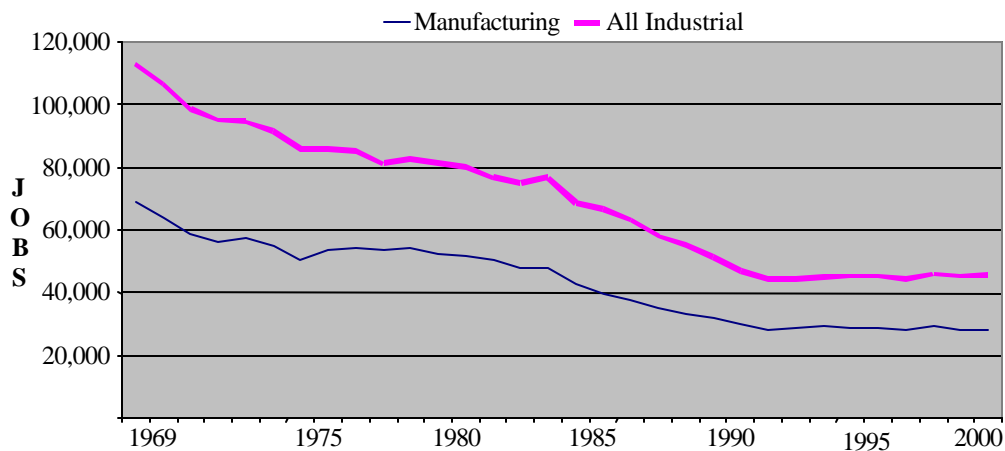
Introduction

Boston's 2000 population of 589,141 makes it the largest city in New England and the 20th largest in the United States. Encompassing only 48.6 square miles (including the Harbor Islands), however, Boston is actually the second smallest major city *in land area* in the country. San Francisco with 46.2 square miles is smaller.

Boston began its life as a peninsula jutting out into Boston Harbor and connected to the mainland by Boston Neck, a narrow strip now known as Washington Street. Boston was immediately surrounded by new towns, some of which were later annexed to the city. But for the most part, the city was left with no room to expand except into the water, which surrounded it. Much of what we know today as the Downtown, the Back Bay, and even the back side of Beacon Hill was filled in by cutting down the hills of Boston or bringing fill in from outside of the city. Land used for industrial purposes once dominated the city's commercial landscape.

Since the 1960s, however, Boston's economy has undergone a transformation to a service-based economy. As a result, Boston's manufacturing sector and wholesale trade sector lost about 67,000 jobs since 1969, when these jobs comprised 20% of the total jobs in the city. In 1969 there were 69,000 jobs in manufacturing and 44,000 jobs in wholesale trade. An overall decline in manufacturing jobs in the United States, larger space demands, and lower land costs and rents in the suburbs have also contributed to the decline of industrial jobs in Boston. In 1992, at the end of the last recession, the industrial sector in Boston employed about 44,000 workers, about 8% of the city's jobs. While the city has been able to maintain the number of industrial jobs at this level, their percentage of the jobs in Boston has dropped to about 7% because of the dramatic increase in service jobs since that time. In 2000, there were 28,000 jobs in manufacturing and 18,000 jobs in the wholesale trade sector. See Figure 1 for the change in industrial jobs in Boston over the past 30 years. (It should be noted that, at the same time that Boston was losing these 67,000 blue collar jobs, the city was gaining more than 187,000 jobs in other sectors.)

Figure 1. Three Decades of Industrial Employment in Boston



In order to preserve Boston’s remaining industrial sector, Mayor Thomas M. Menino has created the Back Streets Program. The Back Streets Program, headquartered in the Boston Redevelopment Authority, is an interagency program that brings a variety of tools and resources to help industrial and supporting neighborhood businesses grow and prosper. Boston’s commitment to this innovative program reflects its commitment to manufacturing and the important role it plays in the overall city economy.¹

Industrial Land

Today, Boston’s land area is classified primarily for residential and commercial uses, with only 5% or 68 million square feet² (1,565 acres) considered industrial land³. This section looks at the land make-up of the 1,439 industrial properties in Boston’s neighborhoods.

The neighborhoods with the most industrial land are South Boston, Dorchester, Allston-Brighton, Hyde Park and Charlestown. These five neighborhoods account for 76% of Boston’s total industrial land area. Industrial development has taken place in these neighborhoods due to their location away from downtown, in places where these neighborhoods had land and room to grow at one time. Industrial development in South

Table 1. Industrial Land in Boston’s Neighborhoods (ranked by percent of total)

Neighborhood	Total SF	Total Number of Acres	Percent of City’s Industrial Land Per Neighborhood	Total Number of Sites
South Boston	20,877,521	479	30.6%	270
Dorchester	9,219,934	212	13.5%	220
Allston-Brighton	7,907,285	182	11.6%	141
Hyde Park	7,285,015	167	10.7%	130
Charlestown	6,548,385	150	9.6%	87
East Boston	4,365,137	100	6.4%	123
West Roxbury	4,155,000	95	6.1%	27
Roxbury	3,188,145	73	4.7%	182
South End	1,556,934	36	2.3%	72
Jamaica Plain	797,486	18	1.2%	45
Central	741,883	17	1.1%	65
Mattapan	27,045	14	0.9%	31
Fenway-Kenmore	439,502	10	0.6%	19
Roslindale	437,967	10	0.6%	24
Back Bay-Beacon Hill	4,410	0	0.01%	3
TOTAL	68,151,649	1565	100%	1,439

Source: City of Boston Assessor Data FY 2000

¹ For further information about the Back Streets Program call 617-918-4400 or go to www.cityofboston.gov/bra/backstreets/backstreets.asp.

² The 65 parcels of land or 4.3 million square feet classified as industrial that are underwater along Boston’s waterfront are not counted in the analysis in this report. Boston’s total “parcel” land area (i.e., without streets and sidewalks) is 45.6 square miles.

³ This analysis captures all industrial uses as classified by the Assessing Department, all vacant industrial land, and tax-exempt industrial sites owned by the BRA/EDIC and Massport. These uses include the Marine Industrial Park, and Massport’s marine shipping and port related industrial land in Charlestown, East Boston, and South Boston, but not Logan Airport. The analysis does not include industrial sites dedicated to public use, such as the MBTA or city public works yards, because the jobs associated with those uses are classified as governmental and not industrial.

Boston, Dorchester, Allston-Brighton and Charlestown is also closely tied to major land and water transportation links.

South Boston has the most industrial land in Boston, with 31% of the city's total. There are over 479 acres of industrial land, with the BRA/EDIC owned Marine Industrial Park accounting for 33% of the neighborhood's total industrial acreage and ensuring South Boston's industrial future. South Boston's access to the harbor, airport, and highways makes it an attractive location for industrial activity.

Dorchester also has a significant amount of industrial land – 9 million square feet or 13.5% of all the city's industrial land⁴. Dorchester also benefits from its accessible location and proximity to major transportation arteries. There are over 180 acres of developed industrial land in Allston-Brighton, which contains 11.6% of the city's total. Allston-Brighton industrial sites grew with the railroad and now include links to the Massachusetts Turnpike. In Hyde Park, there are 7 million square feet of industrial land, primarily located in the southern portion of the neighborhood. Hyde Park's industrial land accounts for 10.7% of the city's total. Charlestown has 6 million square feet of industrial land – 9.6% of the total – which is linked to the harbor and major highways.

West Roxbury's industrial makeup is uniquely different when compared to the other neighborhoods. While it has 4 million square feet of industrial land, making it the neighborhood with the seventh largest industrial acreage, most (54.5%) of this land is a working quarry. Without the quarry, West Roxbury has only 1.9 million square feet of industrial land, which is only slightly more than the South End.

The attached map (page 7) shows the industrial land parcels in these neighborhoods. The majority of the parcels are concentrated around transportation links such as roads, rail, and the waterfront.

Industrial Building Space

This section looks at the industrial building space in Boston's neighborhoods. The top four neighborhoods with the largest amount of industrial land - South Boston, Dorchester, Allston-Brighton, and Hyde Park - also have the most building space. Roxbury, ranked eighth in industrial land, jumps to fifth in the amount of industrial building space. Table 2 displays the square feet of building space by neighborhood and the map on page 8 shows where the industrial buildings are clustered in the neighborhoods.

South Boston with the largest amount of industrial land also has the most built-out industrial space, accounting for 33% of the total industrial building space in Boston. Over 8 million square feet of that space is in privately owned buildings, with 3.3 million square feet in the Marine Industrial Park and the New England Design Center.

⁴ North Dorchester and South Dorchester, which are often listed as separate neighborhoods for planning purposes, have 7.6% and 5.9% of the industrial land in the city respectively.

Table 2. Industrial Building Space in Boston (ranked by percent of total)

Neighborhood	Square Feet of Building Space	Percent of City Industrial Building Space Per Neighborhood	F.A.R.⁵ - Building SF to Lot Size
South Boston	11,752,711	32.7%	0.75
Dorchester	4,338,624	12.1%	0.47
Allston-Brighton	3,424,769	9.5%	0.45
Hyde Park	3,017,616	8.4%	0.45
Roxbury	2,739,843	7.6%	0.94
Charlestown	2,565,170	7.1%	0.65
Central	2,260,453	6.3%	3.05
South End	2,010,190	5.6%	1.29
East Boston	1,610,111	4.5%	0.38
Jamaica Plain	570,755	1.6%	0.73
Fenway-Kenmore	554,176	1.5%	1.26
West Roxbury	508,083	1.4%	0.12
Mattapan	322,346	0.9%	0.51
Roslindale	190,049	0.5%	0.43
Back Bay-Beacon Hill	60,174	0.2%	13.64
TOTAL	35,925,070	100%	0.61

Source: City of Boston Assessor Data FY 2000

The floor area ratios (F.A.R.) in Table 2 show which neighborhoods have the potential to grow and develop built industrial space⁶. The F.A.R. is a ratio of the total square feet of all industrial buildings divided by the total industrial land area of the neighborhood. A low ratio means there is open space with potential for development, while a high ratio means there already is dense development. Industrial developments typically have ratios between 0.5 and 0.8, since industrial uses require large amounts of land for equipment, storage, and loading.

Overall, Boston's industrial development has a low F.A.R. average of 0.61, with a range of 0.38 in East Boston to 13.64 in Back Bay-Beacon Hill⁷. In addition to East Boston, neighborhoods with the lowest ratios and established industrial development are Allston-Brighton (0.45), Hyde Park (0.45), and Dorchester (0.47). These ratios indicate that there is still room for built space on existing industrial sites. Areas with dense industrial development include: Central Boston (3.05), where properties are located in areas near the Fleet Center and North End, Fenway-Kenmore (1.26) where parcels are situated near Fenway Park, and in the South End (1.29) and Roxbury (0.94) where parcels are in close proximity to the expressway.

⁵ Floor Area Ratio of building space to land area.

⁶ Table 2's "SF of Building Space" is the sum total of the Assessor's gross floor area (GFA) data for each neighborhood. It does not include building or land square feet data for public industrial sites owned by the Massport which were not available at this writing.

⁷ West Roxbury is not discussed in this F.A.R. section because, as noted before, 54.4% of its industrial land is the quarry. In addition, the Back Bay –Beacon Hill F.A.R is atypical because of the small amount of industrial land in these neighborhoods.

Vacant Industrial Land Area

Table 3 lists the amount of vacant industrial land in nine of fifteen neighborhoods⁸. This land is designated for industrial uses and has not yet been developed. Although this land is included in Table 1, the growth potential of vacant land makes it worth a closer look. There is a combined total of 1.8 million square feet, or 42 acres of vacant industrial land in the city – representing only 2.7% of Boston’s total industrial land.

Table 3. Vacant Industrial Land in Boston’s Neighborhoods (ranked by percent of total)

Neighborhood	Square Feet of Vacant Prime Land	Square Feet of Vacant Secondary Land	Total Square Feet of Vacant Land	Percent of Total Vacant Land Per Neighborhood	Number of Acres	Total Number of Parcels
Hyde Park	497,231	69,461	566,692	31.1%	13	21
Allston-Brighton	168,503	163,304	331,807	18.2%	8	6
Roxbury	28,890	239,727	268,617	14.7%	6	24
South Boston	113,652	153,657	267,309	14.7%	6	12
Charlestown	153,523	52,910	206,433	11.3%	5	19
East Boston	38,295	49,543	87,838	4.8%	2	4
Dorchester	8,860	65,339	74,199	4.1%	2	5
Jamaica Plain	-	17,246	17,246	0.9%	0.4	4
South End	1,063	1,150	2,213	0.1%	0.1	2
Total	1,010,017	812,337	1,822,354	100%	42	97

Source: City of Boston Assessor Data FY 2000

Hyde Park has the largest amount of vacant land (566,692 square feet or 31.1% of the total vacant industrial land in the city.) Other areas with significant amounts of vacant industrial land are Allston-Brighton (331,807 square feet or 18.2%), Roxbury (268,617 square feet or 14.7%), South Boston (267,309 square feet or 14.7%), and Charlestown (206,433 or 11.3%).

The availability of vacant industrial land provides a good opportunity for small and mid-size industrial development, especially since many of these neighborhoods already have existing industrial land uses, zoning, and transportation links in place. The development of these sites would create jobs for city residents and new tax revenue for the city.

Rankings by Industrial Sites, F.A.R. and Vacant Land

Table 4 summarizes which neighborhoods rank high in industrial land use and which have potential for industrial development. The neighborhoods with the most industrial land include South Boston, Dorchester, Allston-Brighton, Hyde Park and Charlestown, each with 10% or more of the industrial land in the city. South Boston is the most industrially developed neighborhood in Boston (31% of the city’s industrial land), while Back Bay-Beacon Hill is the least industrially developed (only 4,410 square feet of industrial land).

⁸ Vacant industrial land, both prime and secondary is classified by the Assessing Department as a commercial land use. Secondary land is defined as vacant unimproved land that is not considered a prime location, because of inadequate road access, irregular shape or topography.

Neighborhoods with the lowest F.A.R. include East Boston, Hyde Park, Allston-Brighton and Dorchester, with ratios between 0.38 and 0.47. Because industrial districts tend to have ratios between 0.5 and 0.8, these Boston neighborhoods may have the potential for the increased build out of industrial space.

The neighborhoods with substantial vacant industrial land also have existing industrial uses; these include Hyde Park, Allston-Brighton, Roxbury, South Boston and Charlestown.

Table 4. Neighborhood Rankings of Total Industrial Land, F.A.R., and Vacant Industrial Land

Boston's Total Industrial Land			F.A.R.			Boston's Vacant Industrial Land		
Rank	Neighborhood	%	Rank	Neighborhood	Ratio	Rank	Neighborhood	Acres
1	South Boston	30.6	1	West Roxbury ⁹	0.12	1	Hyde Park	13
2	Dorchester	13.5	2	East Boston	0.38	2	Allston-Brighton	8
3	Allston-Brighton	11.6	3	Roslindale	0.43	3	Roxbury	6
4	Hyde Park	10.7	4	Hyde Park	0.45	4	South Boston	6
5	Charlestown	9.6	5	Allston-Brighton	0.45	5	Charlestown	5
6	East Boston	6.4	6	Dorchester	0.47	6	East Boston	2
7	West Roxbury	6.1	7	Mattapan	0.51	7	Dorchester	2
8	Roxbury	4.7	8	Charlestown	0.65	8	Jamaica Plain	0.4
9	South End	2.3	9	Jamaica Plain	0.73	9	South End	0.1
10	Jamaica Plain	1.2	10	South Boston	0.75	-		
11	Central	1.1	11	Roxbury	0.94	-		
12	Mattapan	0.9	12	Fenway-Kenmore	1.26	-		
13	Fenway-Kenmore	0.6	13	South End	1.29	-		
14	Roslindale	0.6	14	Central	3.05	-		
15	Back Bay-Beacon Hill	<.1	15	Back Bay/Beacon Hill	13.64	-		

Certain neighborhoods, shown shaded in Table 4, rank high in opportunities for growth, having a lot of land already zoned for and in use for industrial purposes along with low F.A.R. densities and/or a substantial amount of vacant land. These areas are Hyde Park (with 13 acres of vacant land and an F.A.R. of 0.45), Allston-Brighton (with 8 acres of vacant land and an F.A.R. of 0.45), South Boston and Roxbury (each with 6 acres of vacant land), Charlestown (with 5 acres of vacant land), East Boston (with an F.A.R. of 0.38), and Dorchester (with an F.A.R. of 0.47). These neighborhoods tend to have established industrial districts with important transportation links and their industrial locations can continue to play a vital role in the economy of the neighborhoods and the city and to be a source of blue-collar jobs for Boston's residents.

Conclusion

Despite its relatively small land size and population, Boston's influence is felt throughout the region. Boston is the economic, educational, medical, and cultural capital for the entire New England region. The city is the center of the seventh largest metropolitan area in the nation, with a population of 5.6 million people in the Consolidated Metropolitan Statistical area (CMSA) as defined by the federal government. The smaller Primary Metropolitan Statistical Area (PMSA) includes over 3.3 million people.

⁹ West Roxbury's F.A.R. ranking is low because the majority of its industrial land is a working quarry.

Boston's economy has successfully made the transition to a broad-based service economy with strong sectors in financial services, business and professional services, health care, education, and tourism; and these sectors are projected to grow most rapidly in the coming decade. Boston's strengths in these areas, however, does not prevent it from maintaining its base of manufacturing and other industrial operations jobs, which are often well-paying sources of support to families in Boston's neighborhoods.

Boston is actively working to retain its industrial jobs and attract new ones through its planning and economic development activities. Recent Master Plans for East Boston, Roxbury, and South Boston preserve existing industrial space. At the Marine Industrial Park, the BRA/EDIC is able to provide space at reasonable costs to existing small manufacturing firms and start-ups that employ Boston residents. In addition, the city works with industrial firms which seek to expand their operations in Boston, move into the city, or redevelop "brownfields" to identify and take advantage of city and state incentives.

Blue collar industries will always have a place in Boston's balanced economy, and the preservation of Boston's industrial land, though a small part of the city's land base, is important to maintaining the presence of manufacturing and other industrial operations jobs in the city.

Boston's Back Streets program is designed to help meet this goal. For further information about Back Streets call 617-918-4400 or visit www.cityofboston.gov/bra/backstreets/backstreets.asp.