Toward A Sustainable Future

Cambridge Growth Policy

UPDATE 2007

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Planning Board and Community Development Department

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INTRODUCTION

In this aerial view, there is evidence of many trends in Cambridge's recent history. Central Square, in the foreground, has become an increasingly healthy mixed-use center. University Park, now complete in the middle ground, had only begun to develop at the time of the first growth policy document. In the upper left of the photo, Kendall Square and the East Cambridge Riverfront are completing the transformation from traditional industrial areas to vibrant mixed-use districts. (Photo courtesy of Forest City Enterprises)

Introduction

Use of the 1993 Document

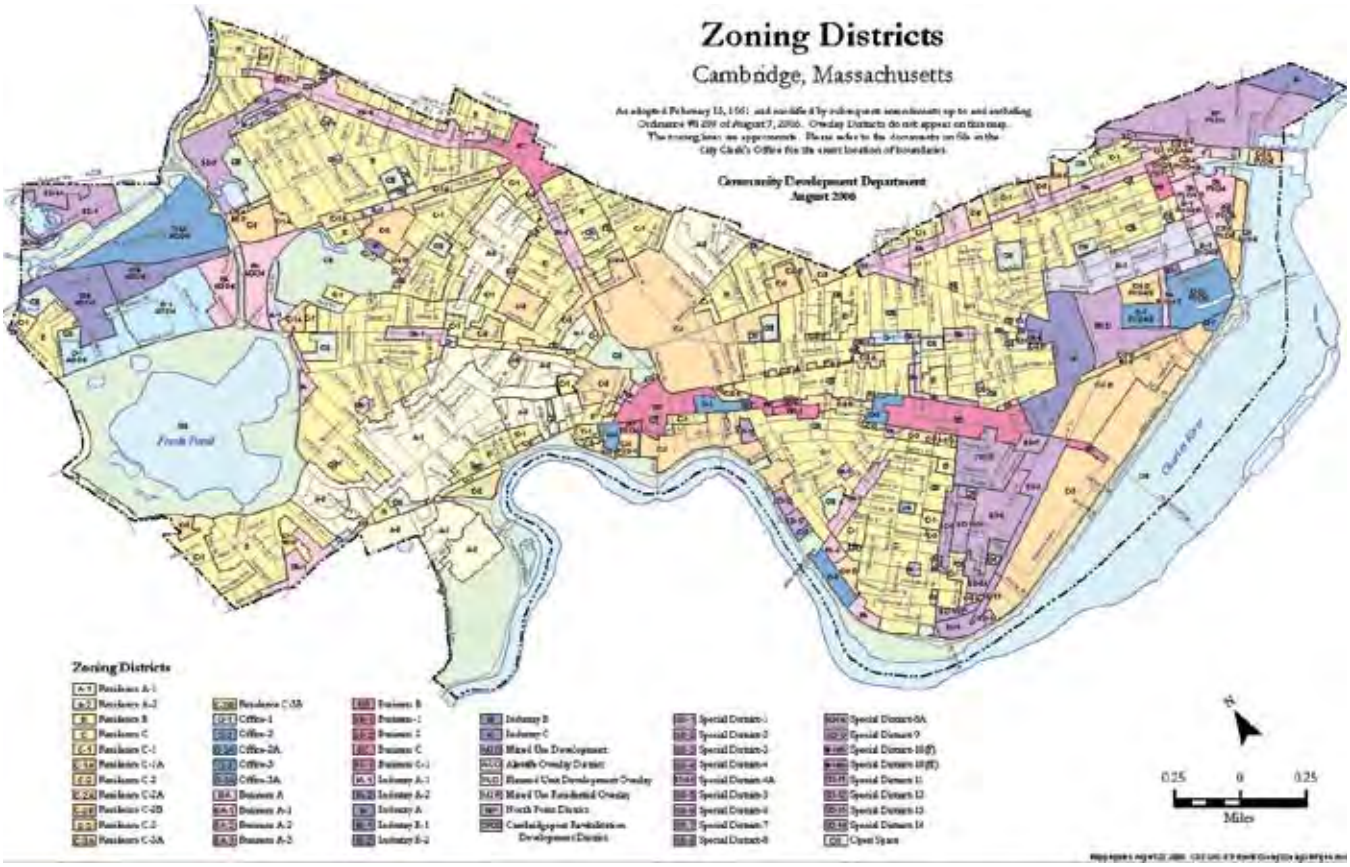
In 1992, the City undertook a process to create a growth policy plan that would analyze the previous decade of extensive development and provide a framework for managing future growth. As a result of that process, the City published *Toward A Sustainable Future* in 1993, which has served as the City's master plan throughout the last decade of growth and change. Prior to the creation of the 1993 document, planning policies had been expressed in a series of plans for discrete areas of the city, such as the 1978 *East Cambridge Riverfront Plan*, the 1979 *Alewife Revitalization Plan*, and the 1983 *Cambridgeport Revitalization Plan*. These plans helped the City guide both public and private development, and were incorporated by reference into the Zoning Ordinance. The City had also developed objectives for other topics of concern, such as affordable housing, recreational programming, and institutional planning. Given the major redevelopment that was occurring in the 1980s, it seemed useful to coordinate all those underlying policies and objectives into a single master plan. The resulting growth policy document has been an extremely valuable reference in the continuing process of development since the nineties.

In addition to providing the policy context for an urban design or land use plan for portions of the community, the growth policy document helps guide the rezoning process that may be needed from time to time to achieve the visions of such plans. It also provides a policy context for evaluating specific actions such as the creation of new open space areas on public or private land. Further, it is helpful at a more detailed level in evaluating small-scale zoning changes in neighborhoods and in considering permitting conditions such as those that may be appropriate to attach to special permits or variances.

Purpose of This Update

The original document anticipated that periodic revisiting of the text would be fruitful, as the community continues to evolve. This is a good time for such an update, as the community has recently accomplished the most ambitious recommendation from 1993, which was to restudy the zoning ordinance in the light of development trends. This study culminated in the Citywide and Eastern Cambridge zoning updates of 2001. The principal area needing further study was the Concord-Alewife section of western Cambridge, and a plan for that area has just been completed, with rezoning adopted by the City Council in June 2006.

The policies continued to be remarkably pertinent in each of those planning efforts; the next logical step is to update the growth policy text that runs with the policies, and in so doing, describe the many significant community-building accomplishments that have occurred in Cambridge since the publication of the original docu-



The zoning map gives a good idea of the layout of uses in the city, with yellows for residential, beige for higher density residential and the campuses, red and pink for retail nodes and corridors, and purple and blue for business areas.

ment. To respect the extensive community process that created the policies in 1993, as well as the 2000 growth management community process, during which those policies were reaffirmed, **the wording of the policies is unchanged.** Certain policies may be more or less relevant depending upon the topic at hand; it is important to remember that every policy cannot always prevail in every land use decision. The array of policies in the document provides a range of considerations, but the policies by themselves do not obviate the need to make choices. The text of this update explains the many plans, projects, and initiatives that have been unfolding since 1993, and their relation to this master planning document. Further, there are suggestions for future development plans and initiatives.

Summary of Changes in Cambridge Since 1993

The amount and kinds of changes since 1993 are widespread and significant; at the same time, Cambridge remains an exceptionally liveable community with a unique character. In keeping this balance, there are several major trends that characterize the City's development process over the last dozen years.

Land Use

Despite the expectation in 1993 that there would not likely be another intense period of construction comparable to the eighties boom, a similar phenomenon occurred in the nineties. The 2000 Citywide Rezoning study assumed instead that

the city would be likely to undergo cycles of more intense growth alternating with slower growth. To refine that vision for future growth, the City has adopted an updated set of land use controls, adjusting the amount of development allowed, encouraging housing, adjusting parking requirements, and requiring design review for most larger development projects.

Transportation

Car ownership and use continue to exert a strong pressure on development. The City promotes the use of alternate mobility modes in special permit conditions, as well as through parking and transportation demand management. In addition, the City works to set a good example by encouraging its employees to take transit.

Housing

Rent control ended in 1995. Since then, older neighborhoods have seen a great deal of reinvestment and modest amounts of infill housing. In 1998, the City passed inclusionary zoning, which requires a percentage of affordable units in all larger projects. In older industrial districts, higher density housing is appearing through conversion and new construction. Remnant industrial uses in neighborhoods may also be converted to residential use if the housing market remains strong.

Economic Development and Employment

The Cambridge economy remains strong overall, with three triple A bond ratings for the City from the major rating companies. As has been true throughout the city's history, a hallmark of its economic health is adaptability to change. For example, at the time of the last update, the biotechnology industry was emerging as an economic force; today, the life sciences are central to the Cambridge economy, largely due to the presence of Harvard, MIT, hospitals, and research centers. Social and other services in the community are well-funded, sustained by taxes from the private market.

Institutions

The universities continue to be major employers in the city, and are important sources of economic vitality. They are growing on their campuses and renovating many older buildings in order to maintain their competitive edge, particularly in the life sciences. Many academic departments, such as the Harvard Law School, need more spacious facilities to keep up with competition from other universities. This need for growth exists despite the fact that student populations are generally steady.

Urban Design

Urban design plans from twenty years ago are well on the way to being completely realized. Citywide project review, adopted in 2001, is helping the community scrutinize new projects on an equitable basis. This review process, described in Article 19 of the Zoning Ordinance, requires traffic and urban design review for major projects, with focus on traffic impacts, the urban setting, environmental context, open space amenities, and housing issues. Plans for major new developments, such as North Point and Eastern Cambridge, are being implemented.

The transit station at Kendall Square is integrated into a mix of uses.

Development around Auburn Court at University Park exemplifies many growth policy objectives: a welcoming new open space leading from the historic neighborhood through new mixed-income housing to new biotech buildings, with heights lower close to the neighborhood.

Open Space

Since 1993, many new parks have emerged, such as North Point Park in the New Charles River Basin and Quincy Square near Harvard Square. Extensive renovations have been made to many existing parks and playgrounds (ranging from the intimate quality of Franklin Street Park to the large scale of Dana Park), and the Green Ribbon Committee created a vision for further improvements to the City park system. Over the next several years, ten acres of additional public parkland will be created in the private development area known as North Point.

Environment and Sustainability

The City has greatly increased its environmental planning and monitoring, with initiatives such as the publication of the Climate Protection Plan, seeking LEED certification for public buildings and encouraging it for private buildings, and the Lead Safe program for deleading housing units.

In the pages that follow, these trends will be explored with reference to the policies that will continue to guide future change.

LAND USE

A mix of uses in buildings from many eras characterizes Lechmere Square.

Land Use

Land Use Pattern and Neighborhood Protection

The first four policies of the 1993 document suggest that the diverse pattern of land use in Cambridge should remain fairly constant, especially in established residential neighborhoods and their companion retail districts. Events in the intervening years have reaffirmed the validity of those policies. Residential areas have remained stable, subject mostly to extensive rehabilitation rather than transformation through new construction.

In the fall of 1997, the City Manager appointed a Citywide Growth Management Committee (CGMAC) to address concerns expressed by the community about future density and traffic growth; the need for more housing, including affordable units; and opportunities for public review of large projects. This committee's work included many public discussions concerning the character of existing residential neighborhoods and the land use structure, the scale and density of the city's commercial districts, and the transitions and buffers between differing scales of uses and densities. The culmination of this work was a series of rezoning proposals which increased required open space in each of the city's residential neighborhoods; reduced allowable density in most of the eastern residential neighborhoods; encouraged housing throughout the city by adjusting the allowed floor area ratios to encourage housing over other uses; allowed housing in districts where it was previously prohibited; and established the first citywide traffic and urban design project review for large projects, including those institutional projects on public streets. Their work included a careful analysis of the long-range outcomes of the proposed zoning changes with respect to traffic, housing, and economic impacts. Provisions for transitions between districts in key areas were also addressed through this process.

As the continuation of this work, the rezoning of the commercial areas in the northeastern portion of the city during the Eastern Cambridge Planning Study in 2000 established a similar structure of adjusted floor area ratios to encourage housing and limit traffic growth, and incentives to increase open space and strengthen existing retail areas and squares. In the same vein, the Concord-Alewife Planning Study proposed similar changes in the Alewife area, and these were adopted by the City Council in 2006.

Consistent with Policy 2, the city's former industrial areas are being encouraged to evolve: at the time of the previous growth policy document, several of the industrial zoning districts (such as IB and IB-2) did not allow residential use. To further the goal of producing more housing, the Citywide Rezoning and the Eastern Cambridge Rezoning made housing allowable citywide and maintained the density allowed for housing in mixed-use districts, while decreasing the allowed density for non-residential projects.

Policy 1

Existing residential neighborhoods, or any portions of a neighborhood having an identifiable and consistent built character, should be maintained at their prevailing pattern of development and building density and scale.

Policy 2

Except in evolving industrial areas, the city's existing land use structure and the area of residential and commercial neighborhoods should remain essentially as they have developed historically.

Policy 3

The wide diversity of development patterns, uses, scales, and densities present within the city's many residential and commercial districts should be retained and strengthened. That diversity should be between and among the various districts, not necessarily within each individual one.

Policy 4

Adequate transitions and buffers between differing scales of development and differing uses should be provided; general provisions for screening, landscaping and setbacks should be imposed while in especially complex circumstances special transition provisions should be developed.

New and old buildings coexist harmoniously along Bow Street, next to Quincy Square.

The Holmes Trust building brings residential use into the heart of Central Square.

The traditional shopping streets and squares have remained healthy over the past dozen years, aided in part by City initiatives designed to enhance their traditional character:

- the reconstruction and upgrading of the entire public realm in Central Square in 1997;
- streetscape improvements and roadway reconstruction along Cambridge Street from Inman to Lechmere Square in 2003-2005;
- a façade, lighting and signage program initially focused on Central Square and then Cambridge Street, but now active in every commercial district of the city, that has helped many shop owners to upgrade their storefronts to the benefit of the public as well as their own businesses;
- reconstruction of the major Porter Square intersection, greatly expanding plazas and parks at the heart of that Square;
- improvements begun in 2005, two decades long in the planning, to reconstruct the eastern end of Central Square (Lafayette Square) at the entry to University Park with new public plazas and parks emerging soon from the realignment of roadway intersections; and
- upgrades to the public realm in Harvard Square with expanded plazas and pedestrian spaces, currently underway.

Private development has been modest in these traditional commercial districts, as opportunities for major development generally lie elsewhere in the more expansive former industrial areas of the city. But they have not remained static.

Harvard Square, the center of major new construction during the 1980s, enjoyed more modest gains in the 1990s, given a slower pace of large new construction as the number of available sites dwindled. What did occur were smaller, more idiosyncratic projects, often framed around historic preservation, and generally fully in character with the incremental nature of the square's commercial development over its 300-year history:

- Winthrop Square, a combination of housing, retail, and office activities in a variety of new and old buildings;
- 3 Bow Street, where one of the first car garages in the city was transformed into a stylish office and retail complex;
- Zero Arrow Street, where a long vacant lot that blighted its surroundings is now a building with a 300-seat theater and the offices of the Carr Foundation; and finally,
- 90 Mount Auburn Street, the glassy new Harvard Libraries facility that introduces a decidedly modern counterpoint to the brick and clapboard context that surrounds it.

In Central Square, change has been more modest, with a general revival of commercial activity in existing storefronts being the most notable change. However, in 1999, the construction of the seven-story Holmes Trust building with 72 units

of housing and commercial activity on the ground floor transformed the heart of Central Square, giving that important crossroads a new spatial and functional definition.

Massachusetts Avenue north of the Common remains prosperous with only small incremental changes. A series of small housing projects has begun to transform the character of upper Massachusetts Avenue between Porter Square and the Arlington line from an automobile service orientation into a more mixed-use district with residential uses. In the past fourteen years, several dozen units of housing have been constructed or currently are under construction, with dozens more anticipated. At Porter Square, Lesley University has become a major property owner with the acquisition of the Porter Exchange building and associated parcels of land. Ongoing master planning on the part of the University suggests that these real estate assets may be transformed in the years ahead to meet its programming needs.

The importance of the vibrant shopping strip along Massachusetts Avenue north of the Common has become a focus for neighbors. They are concerned about how vulnerable the retail uses might be to change, due to the master planning efforts underway at Lesley University and at the Harvard Law School. The Planning Board has encouraged a dialogue among the affected parties.

Institutional Land Use

Policies 5, 6, and 7 lay out a framework for the City's complex relationship with its major resident institutions in regard to land use. (The broader role of the institutions as citizens of the City will be discussed in the chapter on institutional policies.) As developers in the community, they continue to play an important role, generally in a manner faithful to these three policies.

Given rising endowments and donations during the 1990s, the institutions were active builders in the decade. Consistent with these policies and other policies in *Toward a Sustainable Future*, housing for students and affiliates was a significant component of both Harvard and MIT development activity. Academic construction, fueled by new spheres of inquiry that require specialized or state-of-the-art facilities, was also prominent.

In making zoning adjustments citywide in 2001, the City chose not to alter the density standards of the two university campuses in order to permit continued appropriate construction at those core locations. In that vein, throughout the decade Harvard expanded and modernized its science and other facilities on the North Yard, infilling among older buildings or in some instances replacing them. Some of the initiatives:

- the Naito Chemistry Building and Life Sciences Building;
- a new vivarium located substantially underground in the courtyard of the biology building on Divinity Avenue;

Policy 5

The major institutions, principally Lesley College, Harvard University, Massachusetts Institute of Technology and the hospitals, should be limited to those areas that historically have been occupied by such uses and to abutting areas that are reasonably suited to institutional expansion, as indicated by any institutional overlay district formally adopted by the City.

Policy 6

For such institutions reasonable densities should be permitted in their core campuses to forestall unnecessary expansion into both commercial districts and low density residential neighborhoods.

The CGIS building, on the north side of Cambridge Street, is set between an older wood frame structure and the Harvard Graduate School of Design.

Policy 7

Notwithstanding the limitations implied in the above policy statements, (1) the establishment of a new center of tax exempt, institutional activity may be appropriate in one or more of the city's evolving industrial areas and/or (2) the development of a modest and discreet institutional presence may be appropriate in any nonresidential district when a combination of two or more of the following benefits accrue to the city:

1. Such action will permanently forestall excessive development at the core campus of an existing institution, in particularly sensitive locations; or
2. Existing institutional activity in a core campus area will be reduced or eliminated, particularly at locations where conflict with existing residential communities has been evident or is possible in the future; and
3. The potential for future commercial, tax paying development is not significantly reduced; or
4. The presence of a stable, well managed institutional activity could encourage, stimulate, and attract increased investment in non institutional commercial tax producing development.

The Brain & Cognitive Sciences building is at the interface between the MIT campus and the high technology center at Kendall Square.

- the CGIS buildings on two sites on Cambridge Street replacing the older structures that had been there;
- the Northwest Science Center atop a 700-car, four-story underground parking garage, replacing the surface parking facility that long dominated the Hammond Street edge of the campus;
- the Maxwell Dworkin Building on Oxford Street, and Hauser Hall on the Law School Campus;
- the Information Services Building at Hammond Street; and
- the LISE Science Building on Oxford Street.

After a long planning process with the City and affected neighbors, the University has received zoning and special permit approval for the construction of approximately 500 beds of new housing, in a variety of styles, on sites at Banks and Cowperthwaite Streets and on the former Mahoney's Garden Center site in Riverside, venues long held by the University in reserve for housing or other academic uses. As part of the agreement, Harvard has agreed to construct 33 units of affordable housing in the Switch House building on Blackstone Street and 18 units in three townhouse style buildings on Riverside Place. Finally, Harvard will provide a new community park at the corner of Western Avenue and Memorial Drive.

To address a long-standing need to provide affordable housing ownership options to junior faculty and staff, the University purchased a townhouse development of 180 units on Putnam Avenue and Pleasant Street in Cambridgeport.

The University has also become involved in the planning for a major campus expansion—envisioned as a mix of academic, cultural, housing, and commercial uses—on newly acquired land on the southern side of the Charles River in Allston. The University's planning focus on this new frontier suggests that the physical limits are being approached for expansion at its historic locus in Harvard Square.

MIT, less constrained by an immediate residential context, also had a very active decade of construction. Noteworthy new academic buildings have come to dominate the East Campus—the Stata Center and the Department of Brain and Cognitive Sciences, McGovern Institute for Brain Research, & Picower Institute for Learning and Memory—transforming their portion of Main and Vassar Streets from an architecturally undistinguished area into a dramatic entry to the campus, and helping to complete the transformation of Kendall Square anticipated more than forty years ago. In addition, the Zesiger Sports & Fitness Center was added across from the Kresge Auditorium on the main campus.

Like Harvard, the Institute has also expanded its affiliate housing supply, centered in the West Campus and the adjacent portions of the Lower Cambridgeport industrial district. Simmons Hall on Vassar Street provides new undergraduate housing, and the dorm at 70 Pacific Street in Cambridgeport provides units for graduate students. These new structures join dormitory space created in old industrial buildings along Albany Street in a growing university residential precinct, long anticipated at the west end of the campus. Unlike Harvard, much space remains to be filled

within the Institute's core campus, with physical limits on the main campus and adjacent areas not a significant concern for the foreseeable future.

All three of Cambridge's major institutions have been expanding in a more subtle way, one that is always of concern to the City and that bears careful monitoring: acquisition of existing private facilities for conversion to academic use, for investment, or to be held in reserve for some undetermined future use. The 1.6 million square foot office and retail complex at Technology Square was acquired by MIT, where in addition to private commercial tenants, MIT has had a long-standing presence. The Institute now has put the complex up for sale while likely retaining land and other equity interests.

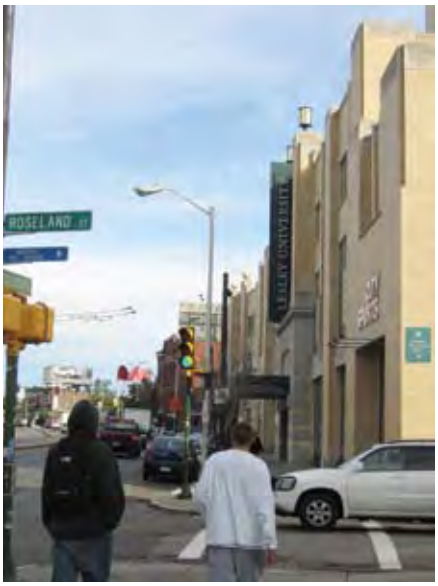
Lesley University has acquired the Porter Exchange building as the initial phase of a new North Campus to house, among other activities, the Art Institute of Boston, which is now merged with Lesley. Harvard University has acquired University Place, among other properties in Harvard Square, as well as leasing numerous other properties in the Square. Aside from the long-term issues of tax obligations, such sites are frequently the location of commercial and retail activities that provide vital services to the abutting community and provide an animating presence on public streets. Conversion to academic use can have significant impact on the vitality of nearby shopping districts.

Evolving Industrial Areas

The evolution of the city's old industrial areas is perhaps the key land use story of the past fifteen years. Policies 8, 9, 10, and 11 suggest that it was in these areas—North Point/East Cambridge Riverfront/Kendall Square, Upper and Lower Cambridgeport Industrial District, the Alewife Quadrangle and Triangle—that an important new pattern of mixed-use development would be established. Generally freer from the constraints of nearby residential neighbors, lacking a pervasive historic context requiring preservation, and frequently close to public transit or to the vehicular entries into the city from the suburbs, these extensive districts would help both to meet new business and housing demands, as well as to harness the income potential of development that could financially support City services. The future articulated in those policy statements has substantially come to pass.

The past fifteen years have led to completion of the East Cambridge Riverfront with housing, retail, and office uses in a set of buildings that almost perfectly matches the urban design committed to paper in 1978. The ambitious plan at University Park in Cambridgeport, also illustrated in a series of detailed urban design plans in 1983, is now fully built out, with a large component of housing only hoped for in the plan. The completion of the Kendall Square Urban Renewal Plan is near, including a significant component of housing expected to be built in a 20 story residential tower, bringing a long development process to a positive end.

As those development areas in the eastern part of Cambridge neared completion after years of intense planning and public investment, peripheral development sites



Lesley University is strengthening its presence in Porter Square.

Policy 8

The availability of transit services should be a major determinant of the scale of development and the mix of uses encouraged and permitted in the predominantly nonresidential districts of the city: the highest density commercial uses are best located where transit service is most extensive (rapid transit and trolley); much reduced commercial densities and an increased proportion of housing use are appropriate where dependence on the automobile is greatest; mixed uses, including retail activities in industrial and office districts, should be considered to reduce the need to use the automobile during working hours. Similarly, the scale, frequency, mode and character of goods delivery should play an important role in determining the appropriate density of nonresidential uses anywhere in the city.

Policy 9

The evolution of the city's industrial areas should be encouraged, under the guidance of specific urban design plans, and through other public policy and regulations such that:

1. Those areas can adapt to new commercial and industrial patterns of development;
2. The residential neighborhood edges abutting such areas are strengthened through selective residential reuse within the development areas or through careful transition in density, scale and lot development pattern;
3. New uses and varied scales and densities can be introduced into such areas;
4. Uses incompatible with the city's existing and future desired development pattern are phased out.

Policy 10

In some evolving industrial areas multiple uses should be encouraged, including an important component of residential use in suitable locations not subject to conflict with desired industrial uses, to advance other development policy objectives of the city:

1. To provide opportunities for those who work in the city to live here;
2. To limit the use of the automobile to get to Cambridge and to travel within Cambridge;
3. To encourage more active use of all parts of the city for longer periods throughout the day; and
4. To limit the secondary impacts of new development on the existing, established neighborhoods. These impacts may be both economic, as in the increased demand placed on the limited stock of existing housing, and environmental, as in the increase in traffic on neighborhood streets.

Policy 11

A wide range of development patterns should be encouraged in these evolving industrial areas at scales and densities and in forms which would be difficult to accommodate in the city's fully developed districts and neighborhoods.

have become active, given that a new future has been firmly charted in those once languishing industrial areas. Cambridge Research Park, just outside the Cambridge Redevelopment Authority's Kendall Square, is now transforming a former brownfields site into a mixed-use center with 300 units of housing now occupied, two major office and research facilities completed, a new network of streets and open spaces connecting to the rest of the city, with other research and development buildings, housing, and theater facilities to come.

The planning leading up to the comprehensive Eastern Cambridge Rezoning Petition provided the regulatory context for the approval of more than 500 units of housing, which has started construction across the street at 303 Third Street, on another former electric utility site. For decades a sea of parking and storage for utility equipment and supplies, Cambridge Research Park and 303 Third Street will soon be integrated into the vital new mixed-use center in Eastern Cambridge, where thousands of people, including the nearby students at MIT, will live, work, and find recreation.

On the other side of Kendall Square, Technology Square (itself a pioneering redevelopment effort in the 1960s) on Main Street and One Kendall Square (an early private industrial reuse effort in the 1980s) on Hampshire Street each expanded with new office and research and development space, as technology firms like Amgen, Novartis, and Schlumberger sought a place at one of the epicenters of innovation in America.

Perhaps the most dramatic turn of events is the beginning redevelopment of the abandoned rail yards at North Point, a process that will unfold over the next twenty years. Through the combination of effective planning by the City, commitment to a vision by developers, and a strong effort by the Planning Board, the community, and City staff throughout an extensive public review process, a community of nearly 3,000 dwelling units and some 2.2 million of square feet of office, research and retail space has begun to be constructed. With the guidance of a master plan that will create about two miles of new roads, ten acres of large and small public parks, a relocated and enhanced Lechmere Station on the Green Line, and access to the Community College Station on the Orange Line, North Point will be a place to live and work for thousands of people. The intent is for North Point to become a destination for many in the region seeking to enjoy the last link of parkland along the Charles River now emerging along the waterfront of North Point after more than a decade of planning.

As the year 2005 drew to a close, the City had concluded a planning effort to identify the desired future for the Concord-Alewife Area, 180 acres with potential for significant future development, although constrained by unique environmental and traffic circumstances. As other former industrial areas are built out, Alewife can be expected to be the object of increased development interest, already suggested in the several office buildings constructed along Cambridgepark Drive in the 1980s and 1990s, and the 300-unit apartment building that opened there in 2001.

The Concord-Alewife zoning and land use plan aims to create a transit-oriented neighborhood with a mix of uses throughout the area, including housing, office/R&D, industry, retail, possible City uses, and open space. It would reconfigure density to respond to transit proximity, provide for greater public review of development in the area, and introduce open space and permeability standards and guidelines for low-impact development that will manage stormwater on-site.

The plan calls for appropriate transitions between the Cambridge Highlands residential neighborhood and the higher density mix of uses permitted in the Quadrangle, and introduces design guidelines to create a sense of place and an active public realm. It recommends overcoming barriers and creating connections needed to create a walkable neighborhood, improving access to transit, and enhancing the environment. The proposal was adopted by the Council in June 2006.

Pace of Development and Limits to Total Development

Policy 13 suggested how to manage the pace of development in Cambridge without establishing arbitrary, numerical markers. Those inevitably fail to reflect the subtle changes in the context for new development, fail to reconcile easily with other community objectives (such as jobs, tax revenue, and repair of damaged landscapes), and lack the flexibility to respond to changing market forces.

In the fourteen years since publication of *Toward a Sustainable Future*, a wave of new construction brought some 4000 new dwelling units in about 4 million square

Policy 12

Those necessary or desirable uses and activities which require specially tailored environments should be provided for and those uses, activities and development patterns which create distinctive environments that serve as amenities for the whole community should be protected or maintained.

For example: low rent industrial space for start up enterprises; locations for industrial use and development which could be compromised by proximity to other, incompatible, uses, including residential uses; small commercial enclaves which directly serve their immediate surrounding residential neighborhood; locations appropriate for gas stations, car repair facilities, tow yards, etc.; structures or clusters of structures eligible for local historic district designation; or for designation as a local conservation district; environments as frequently found in the Residence "A" districts, where a unique combination of distinctive architecture and landscaped open space prevails; areas designated or eligible as national register historic districts.

This perspective suggests the image for the central park in the North Point development, which received a PUD Special Permit from the Planning Board in 2003. Full build-out for the project could take twenty years.

Policy 13

A pace of development or redevelopment should be encouraged that permits the maintenance of a healthy tax base, allows for adjustment and adaptation to changing economic conditions, and is consistent with the City's urban design and other physical development objectives yet does not unreasonably disrupt the daily activities of the city's neighborhoods and residents or overburden the city's water and sewer infrastructure.

feet of development, and approximately 6.75 million square feet of non-residential development. In managing this major change, the City has had the advantage of an improved public review process that has allowed more careful monitoring of new development and more effective mitigation of its impacts. In particular, the Project Review Special Permit and the Parking and the Transportation Demand Management processes have helped the City evaluate additional development. These procedures more systematically identify ways to reduce and mitigate traffic impacts, to improve building and site design, and, in many other subtle ways, to accommodate more development with less impact than was the case in years past.

TRANSPORTATION

Maintenance of public spaces near transit stations is an important priority.

Transportation

Much of the city's liveability stems from its walkable pattern of development, characterized by well-defined neighborhoods and squares that are connected by pleasant streets. Additionally, the transit and bus systems enable people to move easily around the city and to points beyond. Nevertheless, the impact of the automobile on the community is always a concern. As put forth in Policy 14, the City has taken many steps to adddress the issue of automobile use, as well as to encourage non-automobile travel.

Cambridge's transportation planning and policies are guided by the Vehicle Trip Reduction Ordinance (VTRO), adopted by the City Council in 1992, which outlines strategies to reduce the amount of drive-alone traffic, consistent with the range of policies articulated in the original growth policy document.

Land Use and Transportation

In the fall of 1997, the City embarked upon the Citywide Growth Management process that resulted in the Citywide Rezoning of 2001. One of the major issues addressed during this process was future building density and associated traffic growth. As suggested in Policy 15, transportation impacts of various land uses were considered in detail during this study by analyzing anticipated new trips and projected impacts on traffic operations.

To address the cumulative impacts of development, Citywide Rezoning changes reduced permitted commercial densities by approximately a third throughout the city, particularly in areas far from transit stations, reinforcing the transit-oriented pattern of development in Cambridge. Housing incentives were created during this process, reflecting the lower trip generation rates for housing, in an effort to reduce traffic growth. Additionally, the Citywide rezoning also lowered maximum parking limits for some uses to reduce the abundance of parking, which serves as an incentive to drive alone.

The Citywide rezoning also resulted in adoption of a project review special permit for all significant projects throughout the city. This is intended to address project-specific transportation and urban design impacts of development. This review, generally affecting projects with over 50,000 square feet of floor area, requires a detailed traffic study identifying the transportation impacts of the project. The project's impacts on traffic volumes, roadway and intersection operations, and bicycles and pedestrian facilities are evaluated. Mitigation of any substantial adverse impacts is then required by the special permit.

Subsequent land use studies for Eastern Cambridge, Riverside, and the Concord-Alewife area have all been informed by transportation analyses to evaluate various land use scenarios and compare them to the development that might occur if no regulatory changes were made. The Eastern Cambridge Rezoning of 2001 set the

Policy 14

Increase the City's investment in Transportation Demand Management to promote non single occupancy vehicle forms of transportation and assist Cambridge employers, both individually and collectively, in developing such programs for their employees and operations.

Policy 15

Enact land use regulations that encourage transit and other forms of nonautomobile mobility by mixing land uses, creating a pleasant and safe pedestrian and bicycle environment, and restricting high density development to areas near transit stations.

The Minuteman Bikeway begins in Alewife, in the westernmost corner of Cambridge; it will eventually be connected via Somerville to North Point, in the easternmost corner of Cambridge, following rail rights of way.

Policy 16

Encourage regional employment patterns that take advantage of areas well served by transit to and from Cambridge.

Policy 17

Seek implementation of MBTA transit improvements that will provide more direct and, where demand is justified, express service to Cambridge from those portions of the region now inadequately served by transit to Cambridge.

stage for a development plan at North Point, which over the long term, will have significant impacts in the eastern part of the City. Consistent with Policy 17, the project will move Lechmere Station to the north of Msgr. O'Brien Highway, allowing the MBTA to extend the Green Line to Somerville and Medford. This will also improve transit access to and from North Point.

In addition, the North Point project will improve pedestrian crossings of O'Brien Highway, connecting North Point to the rest of Cambridge and providing pedestrian access to the Orange Line across the Gilmore Bridge. Further, it will create a multi-use path through the site, a key part of a regional bike and pedestrian network. The Eastern Cambridge Planning Study and the North Point master plan have put in place design guidelines for future projects in the area to create active, pedestrian-friendly environments and encourage responsiveness to pedestrian, bicycle, and transit facilities in building and site design.

Transportation Demand Management

Cambridge has developed a Transportation Demand Management (TDM) program to promote sustainable forms of transportation, as called for in Policy 14. TDM combines marketing and incentive programs aimed at reducing the use of single-occupancy vehicles (SOVs). The goals of the City's TDM programs are to improve mobility and access, reduce congestion and air pollution, and increase safety. These programs work to reduce the level of drive-alone travel by promoting walking, bicycling, carpooling, vanpooling, public transportation, and other sustainable modes. The City works cooperatively with citizens, businesses, and institutions in Cambridge and the Boston area to implement TDM measures. Additionally, the City encourages its own employees to commute to work by means other than SOV car trips and offers a variety of incentives.

In 1998 the City adopted the Parking and Transportation Demand Management (PTDM) Ordinance, which requires preparation of an approved PTDM plan for projects which include the addition of non-residential parking facilities or additions to existing ones. An ongoing reporting requirement is always an element of PTDM plans.

Bicycle and Pedestrian Program

The VTRO mandates a formal and permanent City bicycle and pedestrian program. Not only do these modes of travel reduce automobile congestion, they also greatly improve public health by reducing pollution and providing exercise for the participants. The City's Bicycle and Pedestrian Committees initiate and implement policies and programs aimed at improving conditions for bicycles and pedestrians. In 2000, the City adopted a Pedestrian Plan outlining the role walking should play in Cambridge, describing current City policies and projects, and suggesting the direction of future pedestrian improvements.

There are now 30 miles of bicycle facilities in Cambridge, including almost 10 miles of bike lanes. Cambridge requires any new street system to accommodate pedestrians and bicyclists, as well as cars, safely and comfortably. For example, the North Point project is obligated to incorporate bike lanes on major streets and create a multi-use path that would connect to the DCR path along the Charles River and to the planned Somerville Community Bike Path. This new path will serve as an important link providing the opportunity for dedicated non-automobile regional connections between Cambridge, Boston, Arlington, Lexington, Bedford, Watertown, and Waltham.

Underutilized rail corridors, such as the Watertown Branch in West Cambridge, offer opportunities for future use as multi-use trails. A feasibility study to evaluate use of the Grand Junction rail corridor in eastern Cambridge as a shared facility to accommodate bicycles and pedestrians was completed in 2006.

Opportunities for reallocating the use of the right-of-way on existing streets are pursued throughout the city. These include restriping to add bicycle lanes, reducing asphalt to widen sidewalks, and adding streetscape improvements such as plazas, benches, street trees, and pedestrian scale lighting. Most recently these opportunities have been realized in the Cambridge Street, Cambridgeport, and Porter Square roadway reconstruction projects and are beginning to be implemented along the Massachusetts Avenue/Lafayette Square corridor and in Harvard Square.

Traffic Calming

The City uses traffic calming to improve the quality of life in neighborhoods and to allow residents and pedestrians to coexist peacefully with cars and other modes of transportation. Traffic calming involves the creation of physical and visual cues, such as raised intersections and crosswalks, curb extensions, and pavement markings, that slow the speed of traffic and increase pedestrian and bicycle safety.

Traffic calming is a priority in areas near elementary schools and playgrounds and in areas where speeding problems are severe. Major construction projects, such as street repaving and sewer reconstruction, create opportunities for incorporating traffic calming elements. Examples of traffic calming projects can be found along Columbia Street, Berkshire Street, and Aberdeen Avenue. Each year traffic calming projects are implemented on several streets in the city.

Infrastructure Improvements

A number of planning studies have resulted in recommendations for infrastructure improvements that are geared towards improving circulation, creating connections, and accommodating pedestrians and bicyclists. In keeping with Policy 22, the City devotes a significant amount of capital resources to implement roadway improvements to enhance conditions for pedestrians, bicyclists and transit users, without increasing through traffic. Major improvement projects are listed below:

Policy 18

Improve MBTA public transportation service within the city including updating routes, schedules, signs, and bus stop placement.

Policy 19

Investigate the feasibility of developing and implementing, within the financial resources of the City, a paratransit system, utilizing taxi cabs where appropriate, in order to supplement the current MBTA system in Cambridge.

Policy 20

Encourage the state transportation and environmental agencies to develop a regional goods movement plan; in the meantime, use the City's limited authority as much as possible to route truck traffic around rather than through residential neighborhoods.

Policy 21

Discourage vehicle travel through residential areas both by providing roadway improvements around the neighborhoods' perimeters and by operational changes to roadways which will impede travel on local streets.

Policy 22

Undertake reasonable measures to improve the functioning of the city's street network, without increasing through capacity, to reduce congestion and noise and facilitate bus and other non automobile circulation. However, minor arterials with a residential character should be protected whenever possible.

Policy 23

Encourage all reasonable forms of nonautomobile travel including, for example, making improvements to the city's infrastructure which would promote bicycling and walking.

Before improvements were made, Massachusetts Avenue had the character of a highway. Pedestrian crossings were very hazardous and there were no provisions for bicyclists.

Central Square

Following the recommendations of the Central Square Committee, the City made significant improvements to the public spaces of Central Square in 1997. Travel lanes were reduced from four lanes to three, which allowed sidewalks to be widened and bicycle lanes to be added. Curb extensions were installed as well, and the cross-

The improved public realm in Central Square, with Carl Barron Plaza in the foreground. Sidewalks were widened and pedestrian crossings were clearly delineated. Bicycle lanes were provided.

ing of Massachusetts Avenue was reduced from an average of 70 feet to an average of 50 feet. Streetscape improvements—including new sidewalks, tree planting, new benches and lighting, and better bus shelters and entrances to the MBTA Red Line station—have made Central Square a more pleasant environment.

Fresh Pond Parkway

Fresh Pond Parkway, which is now owned by the Department of Conservation and Recreation (the former Metropolitan District Commission), underwent a major rehabilitation in 2001 through a cooperative effort of the City and MDC. The roadway reconstruction created pedestrian and bicycle facilities along the parkway with new sidewalks and paths, added four new signalized crossings that make the

recreational facilities around the reservoir accessible by foot or bicycle from the neighborhood, and added new landscaping and lighting. The new multi-use pathways connect to a regional network of lanes and paths, including the Minuteman Bikeway.

Cambridge Street Improvement Project

This project was completed in 2004, with a road redesign incorporating improved pedestrian crossings, traffic calming features, sidewalk reconstruction, curb extensions, and streetscape improvements such as pedestrian scale lighting, benches, and trash receptacles.

Cambridgeport Roadways Project

The principal goal of the Cambridgeport Roadways project is to limit traffic growth on primarily residential streets by improving other means of access to the commercial areas of Cambridgeport, including University Park. The work includes changing Sidney Street to one-way southbound and Waverly Street to one-way northbound.

Finishing the streets and sidewalks in the Cambridgeport Roadways Project.

In addition, there are new connector roadways from those streets to a new intersection on Brookline Street at Granite Street, where a traffic signal has been installed. The design of all streets in the project will improve conditions for walking and biking by providing new sidewalks with curb extensions, landscaping and bicycle lanes, as well as parking. The project also includes extensive stormwater and sewer infrastructure work. Construction was completed in 2006.

Porter Square

The reconstruction of Porter Square was begun in the fall of 2004 and aims to improve conditions for pedestrians (particularly for those crossing at the MBTA Porter Station), bicyclists, and transit users, while facilitating automobile circulation and improving the streetscape. The project includes a reconfiguration of the intersection

at Massachusetts and Somerville Avenues, the addition of multiple new crosswalks, additional crossing time for pedestrians, bicycle facilities, landscaping, and the creation of an artist-designed plaza. The design also includes a new left turn for vehicles exiting the shopping center onto Massachusetts Avenue. Two new crosswalks at Davenport and Allen Streets are included as part of the project to make it easier to walk through the square and to local destinations. Construction was completed in 2006.

Yerxa Road

This project aims to improve public safety by reconstructing the Yerxa Road underpass beneath the Fitchburg Branch MBTA railroad tracks, which carry commuter rail trains through Cambridge to Porter Square and Boston. The project will improve the connection between dense residential areas on the south side of the tracks and the Peabody School, and between numerous community facilities north of the tracks and the MBTA bus line on Rindge Avenue. The reconstruction will make the connection compliant with the Americans with Disabilities Act and will safely and comfortably accommodate both pedestrians and cyclists. It will also incorporate new lighting, landscaping, and a small seating area. The project was completed in November 2006.

Other infrastructure improvement projects that are underway include:

Harvard Square Design

Following some initial work by Harvard Square property owners, the City convened a Design Committee in 2002 to make recommendations on infrastructure improvements. Completed work includes construction of new curb extensions and a crossing island on Mason Street to reduce the length of the crosswalks and reduce the speeds of turning vehicles; an enhanced pedestrian connection to the river by realigning the allee of trees and providing enhanced landscaping along the back edge of the plaza at Eliot Street; and bike parking installation.

Additional improvements begun in 2006 include reconstructed roadways and sidewalks, curb extensions, new crosswalks, wider sidewalks, bicycle facilities, new street trees, new signage and lighting improvements on Church and JFK Streets, expansion of Lampoon Plaza (intersection of Mt. Auburn and Bow Streets), and reconfiguration of Palmer and Winthrop Streets.

Church Street between Massachusetts Avenue and Garden Street will benefit from a widened sidewalk along the south side of the street between Palmer Street and Mass Ave, pedestrian scale lighting, and road resurfacing.

- JFK Street between Memorial Drive and Eliot Street will be reconstructed, with a new road surface and improvements to the brick sidewalks, as well as new lighting fixtures.
- Lampoon Plaza—the wide intersection of Mt. Auburn Street, Bow Street, and Linden Street—will feature a new landscaped island to improve pedestrian safety and to beautify the area.

- Palmer Street between Church and JFK Streets will be transformed from a back alley into a pedestrian destination. It will feature a new patterned roadway surface, in-ground lighting, banners, and an outdoor theater screen for movies in warm weather.
- Winthrop Street between JFK and Eliot Streets will become a "shared street" where sidewalks and street surfaces are on the same level, to enhance the pedestrian environment.

Massachusetts Avenue/Lafayette Square Improvements

This project includes many elements to unify the streetscape and improve conditions for pedestrians and cyclists including new sidewalks, street trees, lighting, street furniture, and bicycle facilities along Massachusetts Avenue between Lafayette Square and the Charles River. The roadway is also being completely reconstructed and repaved, and new traffic lights will better manage automobile movements in the area. At Lafayette Square, a significant new landscaped pedestrian plaza is being constructed with seating, landscaping, and areas where community events may be held. The reconstruction of Massachusetts Avenue and Lafayette Square was begun in early 2005 and is expected to be completed in 2007.

Transit and Paratransit

Cambridge is served by the MBTA Red Line with stops at Alewife, Harvard, Central, and Kendall Stations; by the the Green Line, which terminates at Lechmere Station; and by a series of bus lines. In keeping with Policies 17 and 18, the City is working in partnership with the MBTA to install over 30 bus shelters, about half of which are in new locations, to improve conditions for bus riders and to provide schedule and route information. Installation has begun and will be completed in 2006.

Policy 24

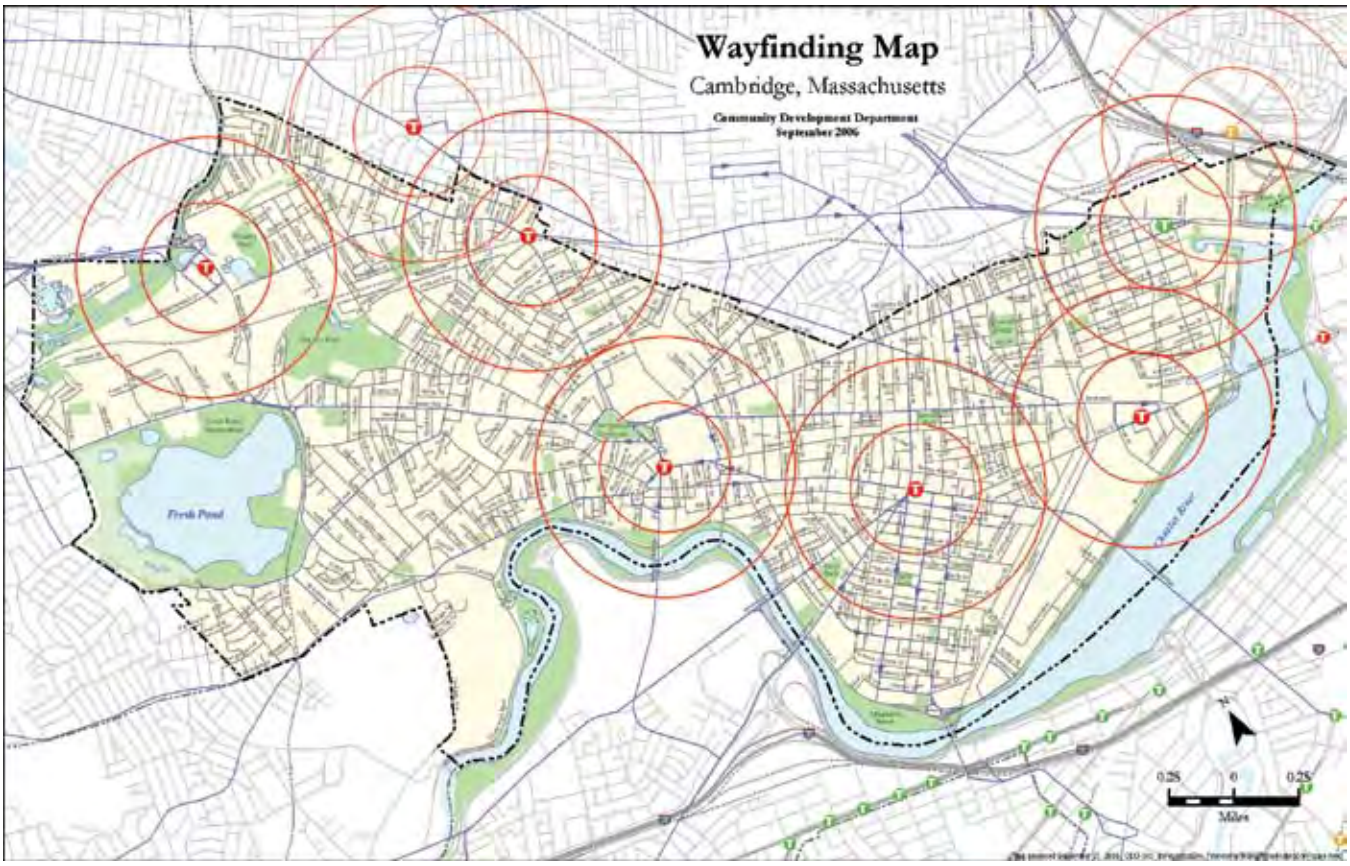
Support regional transportation and land use policies that will improve air quality by reducing dependence on single occupancy vehicles, both through reduction in employment based travel and in other trips taken for nonwork purposes.

Policy 25

Promote the use of truly clean alternative vehicle technologies for necessary vehicle travel particularly in regards to fleets.

The Charles River Transportation Management Association (CRTMA) is a private non-profit organization that provides a variety of transportation services to its members and to others, intended to help improve transportation for Cambridge businesses. CRTMA services include employee shuttles, carpool and vanpool matching, emergency rides home, and pedestrian, bicycle, and transit incentives. Most significantly, in 2002, the CRTMA in partnership with the City started the EZRide shuttle. As suggested in Policy 19, the EZRide provides a paratransit connection that enhances the existing regular transit service provided by the MBTA. By linking North Station, Lechmere, Kendall Square, and University Park, it connects the eastern parts of Cambridge with the Red Line, Green Line, and Commuter Rail, as well as a number of bus lines.

Along with other MBTA communities, Cambridge participates on the Advisory Board that provides public oversight of the MBTA as well as technical assistance and information on behalf of the 175 member communities and the transit riders. As suggested by Policy 24, Cambridge lobbies for transit improvements affecting Cambridge directly as well as for regional improvements that would allow more people to use transit instead of driving to destinations in Cambridge and Boston. City staff meet regularly with MBTA operations and planning staff to advocate good transit service in Cambridge.



The transit stations in Cambridge are shown with walking radii of 1/4 mile and 1/2 mile. Growth policies suggest building upon this excellent urban structure, and minimizing the use of the automobile.

Consistent with Policy 17, which advocates for implementation of regional MBTA transit improvements, City staff members are actively involved in the planning processes for the Urban Ring and the extension of the Green Line. The Urban Ring would improve the circumferential connections among the "spokes" of the T's many radial lines. The project corridor passes through Boston, Chelsea, Everett, Medford, Somerville, Cambridge, and Brookline. The project has been in planning for over a decade, with the first Environmental Notification Form submitted by the MBTA in 2001. The Urban Ring is likely to be implemented in three phases, due to the high cost of the undertaking. As currently envisioned, the Urban Ring would connect the Green and Red Lines through Lechmere and Kendall Stations, and would include a stop in Cambridgeport, before crossing the river into Boston. The next key checkpoint for the phase of the project serving Cambridge will be a draft environmental impact review in late 2007, with the final review scheduled for the end of 2008.

As part of the Central Artery/Tunnel Project project mitigation, the state is committed to creating transit improvements beyond Lechmere Station in the Medford/Somerville corridor. Cambridge's preferred alternative is the extension of the Green Line to Somerville and Medford. The North Point rezoning and conditions of the special permit require that the developer relocate Lechmere Station to the north side of O'Brien Highway to enable this extension. The station relocation is in active planning, with construction anticipated to begin in 2007.

HOUSING

Mixed-income housing being built on the site of a former nightclub near Central Square.

Housing

Toward a Sustainable Future highlighted many housing issues current in 1993 that have remained relevant over the past fourteen years including: The increasing gap between what people can afford and the cost of housing in the city, declining state and federal funding for maintaining or expanding a permanent stock of affordable housing for a wide range of households, and the continuing housing needs of Cambridge residents who cannot afford the rising costs of the city's housing market. In addition, rent control, which had been in place since 1969, was repealed through a statewide referendum in 1995, requiring a significant rethinking of the City's strategies for advancing its affordable housing goals.

In response to these challenges, the City has taken many steps to preserve the diversity of the community by offering a wide range of housing programs to meet the needs of very low-, low-, and moderate-income residents. Wherever possible, rental and homeownership housing is made permanently affordable and new affordable housing is built throughout the city, with particular emphasis on production of units for families with children. Program components include:

- Creation and preservation of affordable housing,
- First-time homebuyer programs, and
- Home improvement programs.

These programs are described below, followed by a discussion of the physical and land use implications of housing programs in Cambridge.

New Affordable Housing

In 1993, forty percent of the city's housing stock was subject to rent control. While nothing in that regulation guaranteed that a rent controlled unit would be occupied by a low- or moderate-income household or a family with children, the moderated rents for such units provided an option for such households in an environment of ever escalating housing costs. However, when rent control ended in 1995, the City sought other means to provide options for low- and moderate-income households and for households with children, as dramatic increases in rents and house prices resulted following this change.

Affordable Housing Trust & Creation of Affordable Housing

A very significant response to the end of rent control was the City's increased funding of the Affordable Housing Trust. From the mid-1990s forward, the City has allocated approximately $60 million to the Trust to be used to preserve and create deed-restricted affordable housing to address the housing needs of lower-income residents. The City's investment has been used to leverage funds from other public and private sources, and, as a result of this unparalleled local support, the City has been able to create or preserve more than 2700 units of affordable housing since the end of rent control in 1995. Much of this activity has been accomplished working in collaboration with local non-profit housing developers and the Cambridge Housing Authority. In addition, the City has provided direct financial assistance to help low-, moderate-, and middle-income first-time homebuyers purchase homes in Cambridge, and now offers up to $130,000 to eligible residents. These purchases include deed restrictions which maintain the affordability of the units upon resale.

Policy 26

Maintain and preserve existing residential neighborhoods at their current density, scale, and character. Consider exceptions to this policy when residents have strong reservation about existing character, are supportive of change, and have evaluated potential changes in neighborhood character through a planning process.

Inclusionary Zoning

One of the principal strategies for creating new affordable housing was the Inclusionary Zoning Ordinance, adopted by the City Council in 1998, which imposed an affordable housing requirement (15%) on all private housing construction of ten or more dwelling units in the city. Previous inclusionary requirements in limited areas of the city (e.g. North Point) were eliminated in favor of this citywide requirement. Fortunately, the City enacted this requirement as the market for new housing construction began to improve. From the permitting of the first inclusionary units in 1998, the City has been able to secure more than 340 affordable homes and apartments, in a wide range of unit types throughout Cambridge. Hundreds of units will be forthcoming in the future as already approved housing projects move into construction in the next several years. These inclusionary units come at no capital cost to the City. Nevertheless, private housing construction does not always deliver the type of housing that is most needed, such as larger, family-sized units.

Community Preservation Act

Cambridge was one of the early and limited number of Massachusetts communities to join, through local referendum and City Council action in 2001, the state's Community Preservation Act (CPA) program, which provides state matching funds

for affordable housing construction, open space acquisition, and historic preservation. Early participation in the program has meant that the City has received a full match of local CPA funds, effectively doubling the City's commitment to these uses. Since FY02, over $37 million in CPA funds for housing has been appropriated to the Affordable Housing Trust to preserve and create permanently affordable rental and ownership housing and support local housing programs. This new funding has enabled the City to expand its existing housing programs to reach more families, including families of moderate and middle incomes.

Policy 27 encourages new affordable housing construction to be at the prevailing scale of the neighborhood in which it is constructed. Policy 28 urges that new housing serve a wide cross section of the city's households.

Existing housing units in the city's traditional neighborhoods are a particularly valuable resource because they are often larger and more suitable for children than the one- and two-bedroom units being created in the new frontiers of housing in industrial and commercial areas. New construction of affordable units in these neighborhoods is also particularly valuable because the existing neighborhood provides an established social and service environment for the new residents.

The opportunities to acquire or create new affordable housing in built-out residential neighborhoods are sometimes difficult to come by and always a challenge. Existing multi-family units are very often converted to condominiums far too expensive for many working families, and infill housing and new construction is often possible only at a relatively small scale and only when evermore scarce sites can be acquired in spite of strong competition from the private developers. Even with the Comprehensive Permit review available to ease some of the regulatory hurdles, new affordable housing projects stretch the limits of public subsidy programs. To attempt to find creative ways to continue adding to the affordable stock despite these challenges, the City has initiated a condominium acquisition program which has successfully added scattered-site condominium units to the affordable stock. These units are located throughout the city in neighborhoods such as Wellington-Harrington, Neighborhood 10, and Mid-Cambridge, and will remain a permanent part of the city's affordable housing stock.

These new efforts have augmented the City's existing housing programs, including first-time homebuyer education and counseling and home improvement programs; together, these represent a comprehensive array of housing programs and services available to Cambridge residents.

Policy 27

Where possible, construct new affordable housing that fits neighborhood character. In existing residential neighborhoods housing should be built at a scale, density, and character consistent with existing development patterns. Permit reconstruction of affordable housing (defined as more than 50% of units rented or owned by households at 80% or less than median income) that serves a wide range of incomes and groups at previous nonconforming density where reconstruction is less expensive than rehabilitation. Emphasize construction of affordable housing designed for families with children.

Policy 28

Affordable housing in rehabilitated or newly constructed buildings should serve a wide range of households, particularly low and moderate income families, racial minorities, and single persons with special needs.

Policy 29

Encourage rehabilitation of the existing housing stock. Concentrate City funds and staff efforts on rehabilitation that will provide units for low and moderate income residents.

Policy 30

Concentrate rehabilitation efforts in the city's predominantly low and moderate income neighborhoods.

Policy 31

Promote affordable homeownership opportunities where financially feasible.

Policy 32

Encourage non profit and tenant ownership of the existing housing stock.

Affordable Homeownership and Non-Profit Control of Affordable Rental Housing

Policies 31 and 32 encourage affordable homeownership opportunities, particularly for low- and moderate-income families and control of existing housing by the non-profit agencies in Cambridge as a way of ensuring their long-term affordability.

A well-designed affordable housing project at Scouting Way and Prospect Street.

Homebuyer Classes

The City has a number of programs to help Cambridge residents become homebuyers. Each year, more than 400 households of all income levels participate in the City's first-time homebuyer training classes. In addition, special classes are offered on specific ownership topics such as multi-family purchases, post-purchase issues, and credit management. Households who have taken the homebuyer class are also eligible to receive individual counseling from the City's homeownership staff.

Financial Assistance

The City also makes funds available to assist low- and moderate-income residents purchase homes they find either on the open real estate market or homes which are being offered for sale at reduced prices through the City's affordable housing programs. Financial assistance is also available to help with closing and downpayment costs, and in some cases, to write down the purchase price of the unit.

General market-rate opportunities for ownership were increased as the large stock of rent-controlled properties became available for conversion to condominiums in 1998 and later. To the extent such new condominium units are owner-occupied, they advance elements of the City's objectives. But the consequences for lower income families are often not positive. Two- and three-family, owner-occupied homes,

sold and converted to condominiums, are frequently lost as affordable rental apartments for a wide range of lower-income households and sold at prices beyond the means of many low- and moderate-income families. Often, the conversion of large apartment buildings also results in units becoming unaffordable for the existing tenants or future tenants with limited income, as sales prices are often set at the top of the market and rents also escalate for the units that may become investor-owned.

The City has attempted to be adaptable in this climate and to use the resources available, in conjunction with local non-profit agencies like Just-A-Start, Homeowners Rehab, Inc. (HRI), the Cambridge Housing Authority, and CASCAP. In some cases, the City has been able to purchase existing rental properties which were at risk of being converted to market-rate condominiums. Scattered-site condominium acquisition programs have also enabled the City to acquire existing units in market-rate buildings which are either sold to lower-income first-time homebuyers or retained as affordable rental housing.

The City has also negotiated the preservation of affordable units in a number of rental complexes constructed in the 1960s, 1970s, and 1980s with the assistance of federal and state housing financing programs which either require limited periods of affordability, or allow owners the option to buy out of the affordability requirements. Working with local non-profit housing agencies, the Cambridge Housing Authority, and public and private lenders, the City has been able to preserve several hundred units in these so-called "Expiring Use" projects, including 300 units at 808 Memorial Drive, a 1970s mixed-income building, now owned by Homeowners Rehab, Inc.; 273 units in one of the Rindge Towers at Alewife, now owned by Just-A-Start; and 42 units at the CAST Apartments now owned by HRI. The City continues to monitor the status of other affordable housing developments which may be at risk of becoming market-rate housing, and remains prepared to work with owners and tenants to preserve affordability whenever possible.

Rehabilitation of the Existing Stock of Housing

Policies 29 and 30 encourage rehabilitation of the existing housing stock with a concentration of efforts in low- and moderate-income neighborhoods.

Home Improvement Programs

With the end of rent control, private rehabilitation of the old housing stock has been proceeding in all neighborhoods of the city. This trend continues today, particularly driven by the widespread conversion of rental units to condominiums. As property values increase, efforts by the City to construct new housing, rehabilitate existing units, or convert non-conforming commercial buildings to residential use, have been made more difficult as opportunities become scarcer and the competition from private developers grows. However, the City is still able to help many low- and moderate-income households renovate and remain in their homes with low-interest loans and technical assistance from the City's home improvement programs.

In 1993, it was anticipated that the existing inventory of housing, then about 42,000 units, would continue to be the chief resource through which the City's housing policy objectives would be achieved, i.e. preservation of existing neighborhoods, stabilization of the existing variety of households, and efficient provision of additional affordable units for present and future residents.

In 2006, the picture is somewhat more nuanced. Since the mid 1980s the additions to the inventory of housing from new construction, principally in old-line industrial areas, has begun to make a difference. Since 1980 the city has seen about 6,500 new housing units come on line (with little loss through demolition). Since 1998, with the adoption of the Inclusionary Zoning Ordinance, more than 340 of the units built have been affordable rental or ownership housing. The projects approved and reasonably certain to be constructed in the next few years will bring several hundred additional units into the city's housing inventory. The future actually looks brighter than it may have in 1993 for a significant expansion in the total inventory of housing.

Neighborhood Character

Policy 26 reiterates the general objective of the City's land use policies to preserve the existing historic neighborhoods at their current densities, scale and character. As suggested in the Land Use Section, this policy has been reflected in the zoning changes that have further reduced development potential in traditional neighborhoods, and the resulting decrease in larger, potentially disruptive housing developments possible within those neighborhoods. Among the neighborhood downzoning petitions adopted recently were Riverside in 2003 and Green/Franklin Street in 2004. Further, the citywide "backyard" rezoning of 1999 reduced the number of units that would be possible in the back yards of lower-density residential districts.

Nevertheless, the neighborhoods have not been static. Significant rehabilitation of the existing housing stock has been underway (indicated in part by a noticeable increase in requests for demolition approval reported by the Cambridge Historical Commission, to allow larger dwellings on lots containing older structures). There often seem to be lots where an additional dwelling unit or two can be created as an extension onto the existing house or as a separate building in the back yard. However, the desire for further control of backyard developments, frequently voiced in the 1980s and early 1990s, has mostly abated as major residential construction has shifted to peripheral areas of neighborhoods or into previously industrial areas.

The conversion or replacement of industrial properties with housing, for sites located in the center of neighborhoods or at the edge of neighborhoods, has also been noticeable as a trend, stimulated by the demand for housing and the limited land and structures available. In Neighborhood 9, the industrial strip along the railroad right-of-way has largely been converted to housing, fulfilling the objectives of the 1978 rezoning that for the first time introduced housing as a permitted, indeed preferred, use in an industrial district. Little remains of the active industrial uses that once lined Richdale Avenue from Upland Road to Raymond Street. Starting in

the mid 1980s, a succession of housing developments has replaced brick warehouses and factories, most recently with the approval of a 20-unit condominium project that is now replacing an old commercial building at the corner of Richdale Avenue and Walden Street. Reflecting this reality, the 2001 Citywide Rezoning Petition rezoned this formerly industrial strip to residential. Similar transformations are anticipated along the Linear Park in North Cambridge, a former railroad corridor surrounded by outmoded industrial uses that abut neighborhood residential streets.

This phenomenon can also be observed at the edge of the Cambridgeport neighborhood along Brookline Street where auto repair and other industrial activities are slowly giving way to housing, most recently with a 19-unit townhouse development between Decatur and Valentine Streets occupied in 2005, where a car repair facility once operated.

A former industrial use on Brookline Street was converted to residential.

Redevelopment of Industrial Areas

As anticipated in 1993, the former industrial districts have continued to be the location of the most extensive and innovative development, both commercial and residential. The trend was well underway during the 1980s with the construction of three large condominium developments in the East Cambridge Riverfront (547 units in the Rivercourt, Esplanade, and Graves Landing developments). They have proven to be only the beginning. Policy 33 lays out a set of objectives for encouraging housing, especially affordable housing, in these industrial areas. At the turn of the 21st century, little incentive has been necessary to stimulate significant residential construction in a wide range of industrial environments, as the market for competing uses has flattened while the demand for housing has remained strong. Nevertheless, in the major Citywide Rezoning adopted in 2001, a housing incentive was created through a reduction in allowable commercial square footage, coupled with no change in the amount of residential construction allowed. This change was made to counter the fact that commercial development has often been more lucrative than residential development in past development cycles.

New housing in the former industrial district south of Pacific Street in Cambridgeport.

North Point

With the revival of housing construction in the mid 1990s, reflecting local, regional, and national trends, new housing construction has continued to be a strong presence in commercial districts. Most dramatic has been the approval of the master plan for the 45-acre North Point development in East Cambridge, which anticipates the creation of 2,400 to 2,700 dwelling units over the next twenty years. The first 300-unit installment has broken ground.

Already underway is the 426-unit Phase One of the 767-unit Archstone-Smith development on Monsignor O'Brien Highway. This new housing will complement the 435-unit Museum Towers development (now known as the Regatta Riverview Condominiums) that was constructed in the early 1990s in a barren industrial area, with the hope that a North Point neighborhood would eventually emerge. As a result of the City's Inclusionary Zoning requirements, several hundred affordable rental and homeownership units will be included in these new developments as

Policy 33

Encourage where appropriate, recognizing housing's possible impact on desirable industrial uses, the construction of new affordable housing through requirements, incentives, and zoning regulations, including inclusionary zoning provisions, in portions of the city traditionally developed for nonresidential, principally industrial, uses. Create effective, well designed transitional zones between residential and industrial uses.

Worthington Place had been a manufacturing facility and warehouse for metal fasteners.

buildings are completed in the coming years. It took fifteen years of planning, but an optimistic future is emerging with parkland along the River and the new mixed-use center beginning to appear on the other side of the Gilmore Bridge.

Kendall Square

Kendall Square has begun to emerge as a more active city square as hotels, new technology companies, the Broad Institute, MIT academic construction, and a long sought component of housing provide definition to its streets. These changes will bring new inhabitants to the square for more hours in the day and offer the hope that Kendall Square will become a modern counterpoint to the historic crossroads at Central and Harvard Squares. The first new housing in the area was the conversion of a cluster of industrial buildings on Binney Street in 1998 to 186 units of housing now known as Worthington Place.

Closer to the square, 300 units of housing in a 20-story high-rise building (known as Watermark) are now being occupied at Cambridge Research Park on Third Street. Ground has been broken for the 500 units of housing approved at 303 Third Street, just across the street. Approved in July of 2005, 180 units of housing are expected

Watermark : Housing at Cambridge Research Park.

to be constructed in the heart of Kendall Square at Ames Street in another 20-story high-rise tower. These new projects will bring a welcome vibrancy to Kendall Square that only residents can provide. In addition, the inclusion of affordable units in these new developments, as required by zoning, will help ensure the continued diversity of this area of the city.

University Park

University Park near Central Square was always planned to have a component of housing; the zoning that was created to shape the entire mixed-use project in fact mandated 400 units of housing, including 150 affordable units. As the final construction of buildings in University Park concludes with the occupancy of 100 Landsdowne Street and 23 Sidney Street, the development has a total of 674 dwelling units, an outcome long desired by the City. They have been achieved as the respective market demands for housing, research and development, and office uses have shifted over the fifteen years it has taken to realize the plan. The Brookline Street housing (Auburn Court I and II), at the edge of both University Park and the Cambridgeport neighborhood, has been built at a neighborhood scale, with many family-sized rental units with affordable rents designed to serve a wide range of low-income, moderate-income, and market-rate households.

View from the interior of 23 Sidney, looking out over the central open space.

The residential presence in the Cambridgeport Industrial District is further enhanced with the conversion by MIT of two industrial buildings along Albany Street to dormitories in the 1980s and early 1990s, and with the construction of 437 domitory units on a vacant parking lot along Pacific Street in 2000. More such construction is anticipated in the future, with 345 additional dormitory units approved by the Planning Board in 2006 for a new building at Pacific and Albany Streets.

Alewife

A similar trend can be discerned in Alewife, where a 311-unit apartment complex was constructed on Cambridgepark Drive, a street that for two decades was dominated by old industrial facilities or recent office and research and development buildings. The old industrial site at 310 Rindge Avenue, explored as a housing site by numerous developers over the past twenty years, is now being converted to 102 units of housing known as the Brickworks Condominiums. Another 62 condo units have been permitted at 120 Rindge Avenue on the former St. John's rectory site. In addition, a new project with about 65 units is now under under construction on Wheeler Street in the heart of the old industrial quadrangle.

All of this construction is responding to a market demand for housing in Cambridge from a host of different people: employees coming to the city for a new job, longtime employees who have discovered the convenience of living near their employment, empty-nesters starting out a new life in the city, academics and students who find living off campus a better choice, or those who can live anywhere but choose Cambridge for the many amenities it provides. Many people can now find a new home without competing for a place in the limited inventory of housing provided in traditional neighborhoods. As a result of the Inclusionary Zoning Ordinance, a portion of these units will be permanently available to those with low and moderate incomes.

ECONOMIC DEVELOPMENT AND EMPLOYMENT

The developer of One Bow Street brought back some of the retail uses that had been in the building before renovation, and added a new restaurant as well.

Economic Development and Employment

In 1993, the economy in the city and the region generally were suffering from a recession. Since the boom of the eighties had died out, the growth policy initiative was in some measure an attempt to regroup, and to consider what kind of economic development would be appropriate once the economy began its move towards recovery. *Toward a Sustainable Future* accurately predicted that the traditional industrial districts "can be expected to change radically in the years ahead as they did in the most recent decade of substantial growth."

The 1993 document also reflects concerns about the disappearance of traditional manufacturing uses, and suggests encouraging a wide range of enterprises, including manufacturing (see Policies 34 and 35). The nature of manufacturing itself has changed even more since the nineties. Given the high cost of land in particular, the only products that would be likely to be made in Cambridge today would be related to technologies that are emerging here. An important recent document, *Economic Development Policy,* published in the spring of 2004, further elaborates on the City's economic goals, given the realities of our new economy with its emphasis on biotechnolgy.

Evolving Industrial Areas

Several City plans have guided the evolution of industrial areas over the last two or three decades, including the *Kendall Square Urban Renewal Plan* (c.1960), the *East Cambridge Riverfront Plan* (1979), and the *Cambridgeport Revitalization Plan* (1983). Policy 37 allows the continued development of areas for which plans have been thoroughly reviewed and approved; this approach has been successfully applied in all these areas, each of which has a different implementation history. The major rezonings adopted in 2001 respected this policy objective.

Before the growth policy initiative, the transformation of the old industrial areas had already taken hold in the East Cambridge Riverfront, in which there was construction of over three million square feet of new uses in the 80s, capped by the opening of the nearly one million square foot CambridgeSide Galleria Mall in 1991, just as the economic recession hit. The Riverfront, a district that had been a traditional industrial center making glass, valves, caskets, ink, and furniture, had become a new neighborhood with office and research and development uses, hundreds of housing units, and expanded hotel and retail uses. The most recent development in this 60-acre triangle was the Hotel Marlowe, which was built in 2002 after housing, cinema, and retail options had been explored and rejected for the site over the previous decade.

A similar transition was taking place in Kendall Square—also known as Cambridge Center in the area administered by the Cambridge Redevelopment Authority (CRA)—although many more sites were yet to be developed in 1993. Since then, Kendall Square and environs has become the center of the life sciences industry

Policy 34

Cambridge's evolving industrial areas are a valuable resource whose mix of uses must be carefully planned over the next twenty years.

Policy 35

Appropriate development in the city's evolving industrial areas should be encouraged to maintain the city's overall economic health, to expand the tax base, and expand job opportunities for Cambridge residents.

Policy 36

The observable trend towards the development of clusters of related uses in the city's evolving industrial areas should be strengthened through the city's land use policies.

Policy 37

In evolving industrial areas for which economic development, urban design, or other plans have been developed, private phased development consistent with those plans should be permitted to develop to completion, even if completion may take more than a decade.

in Cambridge, complemented by the development of hundreds of housing units. Biogen Idec is now one of the top 25 employers in the city, while the neighboring Whitehead Institute and new Broad Institute are world leaders in genome research.

In 1988, a plan was adopted for University Park, but development had only begun to take place as the first growth policy document was published, and the recession slowed the further realization of that project. Subsequently, as biotech companies began to locate in Cambridge, Millennium Pharmaceuticals moved into University Park and is now another of the top 25 employers in the city. At the other end of the spectrum of uses, the final two residential buildings were occupied in 2006, resulting in 674 units of new housing.

New Initiatives

The Citywide Rezoning and the Eastern Cambridge Planning Study (ECaPS) were significant planning and rezoning efforts of the last few years (discussed in detail in the Land Use chapter). They are now having the kind of impact on economic growth in formerly industrial areas that the earlier plans had at the end of the last century. The policies followed in those planning efforts (including Policy 38) are consistent with the set of economic growth policies that have been guiding the redevelopment of the city in ways that encourage positive change, while respecting the special qualities of Cambridge. Citywide Rezoning and ECaPS produced a more detailed and comprehensive system of transportation and design review for new projects, and as a result, many City economic goals are being furthered without overpowering the city's neighborhoods, as suggested in Policy 39.

Several recent major projects in the Eastern Cambridge area (defined to include the area from Kendall Square up to North Point) are helping to transform this increasingly vital part of the community. These projects also reflect how the changing economy affects the built environment. Technology Square was built in the sixties as

Policy 38

Within clearly established limits, land use regulations in the evolving industrial areas should recognize the need for flexibility of use as for instance between office, research, and light manufacturing activities and provide for a wide range of density options throughout the city including those which foster research and development and start up operations.

Policy 39

Development patterns in all nonresidential areas must be planned to minimize negative impact on abutting residential neighborhoods.

an office park in the fashion of redevelopment typical at that time, with large towers separated from the street and clustered around a courtyard that most passersby would never see. The office tenants had left by the nineties, and a new plan was implemented to make the open space connect to the adjoining street, with several new buildings inserted to make better use of the site for biotech tenants. Current plans include the addition of more ground floor retail to help animate both the complex and its surroundings.

Just across the street from Tech Square is MIT's new Brain and Cognitive Sciences building, a project which reflects the growing awareness of the importance of multi-disciplinary or interactive work in the sciences, and the fact that new buildings can help stimulate positive synergy among disciplines. Similarly, the neighboring Stata Center brings together many disciplines at MIT that had been dispersed, with the goal of fostering interdisciplinary research. Down the street in Kendall Square itself, the Broad Institute opened in 2006. This facility will allow an unprecedented collaboration among MIT, Harvard, and the Broad family to build upon the genomic research breakthroughs achieved by the adjoining Whitehead Institute. Further adding to the dynamic mix of uses in this area, the first residential project in the heart of Kendall Square is expected to be constructed immediately next to Broad. Foundations are in place, and the tower may begin construction in the near future.

A positive mix of new uses characterizes the project known as Cambridge Research Park, on the site of a former coal gasification plant on Third Street. This Planned Unit Development project, approved by the Planning Board in 1999, includes the Genzyme headquarters, a nationally recognized "environmentally friendly" building that helps set a new standard for green design in Cambridge. Additional elements of the project will be more research and development uses, three residential buildings (one now being occupied), and a major performance center. Across the street on a former utility site, another residential building at 303 Third Street, has started construction. Further north towards Lechmere Square, still more housing is under

Alewife, with its extensive wetlands, includes a mix of business, retail, and residential uses near the transit station at the terminus of the Red Line.

development in a former candy factory at One First Street. An important part of the transformation of the former industrial areas is the provision of mixed-income housing with retail on the street level in each of these projects, to help make Cambridge a lively place around the clock, rather than only from 9 to 5.

All of this development experience is being applied on the old railyard now known as North Point. Here, an entire new district with 5 million square feet of development has been planned, with infrastructure to include new roads, sewers, parkland, and a reconstructed Green Line station at Lechmere. The first two residential buildings are under construction, along with the major central park space. Again, a wide gamut of uses is being sought to help weave this project into Eastern Cambridge. Each of these developments has had extensive public review to minimize traffic and other negative impacts on nearby neighborhoods while expanding employment options as a new economy unfolds in the city.

Most of these new initiatives are in the eastern part of the city, but another large area that is likely to be undergoing change in the coming decades is Alewife. The economic booms of the last few decades have not produced large amounts of new development in this westernmost district, but there is still significant potential for change from the rather scattered pattern of uses that exists in Alewife at present. The proposed revisions to the zoning for this area were adopted in 2006 and anticipate that change can be better managed by taking into account goals such as the orientation of development to transit, new infrastructure, rationalization of the street network, linking and adding open space, and improved stormwater management.

Policy 40

The City should actively assist its residents in developing the skills necessary for them to take full advantage of the city's changing economic makeup and to provide the personnel resources which would make Cambridge a desirable place to locate and expand.

Policy 41

The benefits of a strong employment base should be extended to portions of the resident population that have not benefitted in the past; the City should support appropriate training programs that advance this objective.

Policy 42

While recognizing some of the disadvantages of any urban location for many kinds of manufacturing activities, the City should make every effort to retain and recruit a wide range of enterprises suitable for a Cambridge location, presently, or in the future as manufacturing processes evolve and change. Where possible the disadvantages should be minimized and the real advantages strengthened for manufacturing activities that can widen the city's job base and solidify its economic vitality.

Employment

An important goal of the Economic Development Division (EDD) in the Community Development Department is to provide support for Cambridge's working population, which is widely known as being highly talented and well-educated. Responding to Policies 40 and 41, the City places great emphasis on cultivating a broad-based workforce in order to meet the needs of Cambridge employers. City staff continually design and develop initiatives aimed at enhancing access to jobs for Cambridge residents by coordinating with the Office of Workforce Development, employers, the School Department, non-profit organizations, and others.

In 2001, the EDD published *Education and Skills for the New Economy: A Survey of Employment Trends in Cambridge*. This document helps interested parties gain a better understanding of current and future labor needs of the city's employers in the science and research, health, information technology, and business and finance industry sectors—the so-called "new economy." It also provides a better understanding of the links among workforce policies, school curricula, and the jobs of tomorrow. Other key initiatives include City participation in the Just-A-Start biomedical training program and the Cambridge Health Alliance health care advancement training. Both programs provide access to training and employment opportunities

for low-to-moderate income Cambridge residents so that they can find high technology and medical technology jobs that tend to be available in the city.

Encouraging Business and Industries

Subsequent to the first publication of *Toward a Sustainable Future*, the City, acting through the EDD, has been expanding its efforts to provide economic development programs and initiatives that are compatible with the character of each neighborhood, including one-on-one business counseling services, real estate site finder assistance, workforce development assistance, and networking opportunities for small and large businesses (see Policy 44).

Small Business Assistance

One-on-one counseling and technical assistance are offered to new businesses in the start-up phase and to existing businesses which may face a wide range of issues from business expansion to financial distress. Businesses may receive help with writing a business plan, which can be used to apply for business loans or as an operating tool for running the business. Other assistance may include help with new business feasibility analysis, marketing plans, expansion plans, site assessments, and referrals to sources of capital.

Continuing its business assistance efforts, the Economic Development Division offers a Business Development Services Program. Aspiring entrepreneurs and individuals starting businesses are provided a continuum of services that includes information on exploring entrepreneurship, workshops on starting a business, and an intensive training series that will prepare participants to complete a sound business plan of their entrepreneurial idea. Established businesses are provided a range of services that includes information on finance, marketing, taxes, and pricing, and individual consulting appointments.

Several non-profit organizations and state and federal agencies have developed programs designed to help emerging businesses obtain capital. In addition, Cambridge banks have loan programs specifically designed to support the needs of small businesses. Working in collaboration with state and federal agencies, including the Small Business Administation, the State Office of Minority and Women-Owned Business, and Mass Development, the Economic Development Division assists businesses with locating the appropriate lenders, based on the needs of the company, and assists with the preparation of loan applications.

Large Business Assistance

The Economic Development Division also maintains a listing of available commercial real estate and makes this information available to anyone seeking commercial space in Cambridge. Site searches are performed for office, retail, industrial, and research and development space.

The Development Log, published quarterly, tracks large-scale residential and commercial development projects in the city that are currently in the permitting and

Policy 43

The City should establish the regulatory environment and provide the support necessary to encourage the establishment of manufacturing activities for which the city may be a suitable location in the future.

Policy 44

The City should actively cultivate a regulatory and policy environment that assists in the retention of existing industries, supports the creation of new businesses and the innovative thinking that precedes it, retains an inventory of low cost space necessary for fledgling enterprises, and fosters an innovative environment where entrepreneurship thrives.

Policy 45

Specialized economic activities for which Cambridge is a congenial host, such as the tourism and hospitality industries, should be supported.

Policy 46

The diversity, quality, and vigor of the city's physical, ethnic, cultural, and educational environment should be nurtured and strengthened as a fundamental source of the city's economic viability. More specifically, minority businesses and economic entrepreneurship should be encouraged.

Kendall Square used to be a traditional center for manufacturing technology. Now, it is a mixed-use center with an internationally known biotechnology emphasis.

construction stages. For each project listed, the log contains the name and location, project size, developer, type of use, square footage, and contact information.

The EDD monitors current market conditions in employment and real estate to understand their impact on the City's economy. Information is maintained on development projects, census data, and industries of special significance to the City. As the Cambridge business environment continues to evolve, it is important to make businesses without a Cambridge presence aware of all that Cambridge has to offer. *Cambridge Biotech: History in the Making* was published in 2005 to illustrate how Cambridge has become a world leader in the biotechnology industry.

In order to provide a user-friendly regulatory environment for residents and businesses, the EDD has developed six systematic guides to obtaining common licenses and permits. Topics include how to obtain a building permit, a curb cut permit, a fire safety permit, permits and licenses required to hold a special event, historic commission certificates, and how to start a business in Cambridge.

Diversity

Toward A Sustainable Future defines diversity in a very broad manner, including the character of neighborhoods, architecture, population, and types of uses, all of which are important to the special character of the community. In particular, the City continues to support the goal of maintaining diversity with respect to its business economy. The development and enhancement of businesses owned and operated by women and/or minorities have long been high priorities of the City. Since 1997, the Economic Development Division has published three editions of the Cambridge *Women and Minority-owned Business Directory*. Most recently published in May, 2006, the directory lists 276 women and minority-owned businesses and contains a resource guide to other small business support services.

The City's Purchasing Department has a good faith purchasing program that is available to all state-certified minority and women-owned businesses. The State Office of Minority and Women Owned Business Administration, (SOMWBA), administers the certification process. As women and minority-owned businesses have traditionally had less access and opportunity in the broader economy, the City has encouraged greater use of the products and services provided by these businesses.

Retail Activity

Commercial activity is not centralized in Cambridge; rather, it takes place within every section of the city. Large firms and neighborhood shopping areas coexist in close proximity to residential districts and local educational institutions. Throughout the city, citizens appreciate the vitality that comes with retail activity, and Cambridge's independent retailers are known for the unique goods and services that they offer.

Several very successful economic development programs support retail in Cambridge by offering technical advice and matching grants. The Best Retail Practices

Policy 47

Existing retail districts should be strengthened; new retail activity should be directed toward the city's existing retail squares and corridors.

Policy 48

Retail districts should be recognized for their unique assets, opportunities, and functions, and those aspects should be encouraged, in part to assure that they can compete with regional shopping centers and maintain their economic viability.

Program helps retail business owners learn the latest and best techniques to improve their interior store design, merchandising, marketing, and store operations. The Facade Improvement and Signage & Lighting Improvement programs provide technical and financial assistance to property owners or tenants seeking to renovate or restore their commercial building facades. The programs' objectives are to support the local small businesses that provide the day-to-day retail life of the city, by enhancing the physical appearance of storefronts and by helping to build a stronger customer base. EDD also periodically conducts workshops (such as E-Marketing for Retailers) for people interested in business assistance.

In addition, the Economic Development Division continues to collaborate with local business associations and organizations, including the Central Square Business Association, the Harvard Square Business Association, the Inman Square Business Association, the Chamber of Commerce, the Center for Women and Enterprise, and the Women in Business Connection, to improve the business environment and to promote the visibility and marketability of commercial districts. In 2005, over 2000 retailers were surveyed by the Economic Development Division. Survey returns indicated that merchants are concerned with increasing their market share, but are generally satisfied with the viability of their businesses.

A Planning Board seminar on retail use in the summer of 2004 addressed concerns about the viability of ground floor retail throughout the city. The Board, the staff, and community members discussed the challenge of how to promote retail, while recognizing that it is a very vulnerable use, and very dependent upon the people who run the businesses. This will be an ongoing topic of discussion in the future.

There are many areas of the city in which it is desirable to encourage retail use, or at least to mandate ground floors that are as active as possible. On the other hand, there are areas where retail cannot thrive because the location is not proximate to other shopping, and access is difficult. However, developers should be encouraged to facilitate the use in promising locations, even if it is not the most profitable choice. In the long run, areas become more desirable and broadly successful if there is a healthy retail environment on principal streets and in important central locations. Sometimes, it takes a while for an area to have sufficient density to support shopping; the first buildings to be located in such areas should have provisions for the eventual location of retail on ground floors, even if such uses are not immediately feasible.

INSTITUTIONS

Following a lengthy planning and design process, the Main Library is being thoroughly renovated and will have a glassy new addition.

Institutions

As described in more detail in the 1993 growth policy document, Cambridge is distinguished by an extraordinary range of institutions for a city of its size. Clearly, Harvard University and the Massachusetts Institute of Technology are the most well-known institutional presences, and their campuses and land holdings tend to generate the most physical growth and change, and thus merit the most attention from the point of view of City policy.

The new Police Headquarters will be in a building near the corner of Sixth Street and Binney Street in East Cambridge.

The community's mid-size post-secondary schools, Lesley University and Cambridge College, also play important roles in the life of their neighborhoods. It is also worth noting that Cambridge's character is influenced significantly by the many other smaller institutions—such as the Episcopal Divinity School, three hospitals, a YMCA and a YWCA, many churches, and an array of smaller non-profits—that are scattered throughout the community.

Over the last decade, the City itself has made extensive improvements to its physical plant. These include a new waterworks in western Cambridge, renovations to fire stations and schools, a completely renovated City Hall Annex at 344 Broadway, a major expansion of the Main Library about to begin construction in Mid-Cambridge, a planned new police station headquarters in the eastern part of the city, and extensive and ongoing upgrading of its street system and related sewer and water distribution systems.

Policy 49

The City and its major institutions should engage in a formally established ongoing dialogue to share concerns; identify problems, conflicts, and opportunities; and to fashion solutions and areas of cooperation to their mutual satisfaction. As part of this dialogue, each institution should create a plan describing its existing status as well as outlining its future needs and goals, and the means for achieving those goals.

Policy 50

The City should recognize the need for the major institutions to adapt and respond to changing circumstances to maintain their leadership positions in education, health care, and research while recognizing, responding to and coordinating with City policy goals.

The North Yard project has been designed in close consultation with neighbors and the City. Ultimately, this formerly neglected area will feel more like the rest of the Harvard campus quad system, with green spaces and pedestrian ways framed by new buildings.

Community Interaction

Since the publication of *Toward a Sustainable Future,* each major educational institution has experienced significant growth on its campus. A great deal of attention has been paid to these changes in various public forums, as suggested in Policy 49. In December of 1991, the Mayor's Committee on University-Community Relationships called for the Planning Board, with the assistance of the Community Development Department, to conduct an annual review of institutional issues in the growth policy context, including "the status of known projects, time frames for the development of new policies, the identification of unmet community and university needs." Subsequently, the Planning Board and staff have developed an annual "Town-Gown" reporting process to elicit information that will be useful to the Board's work and of interest to the general public. Over the last few years, the Board, City staff, and the schools have worked to improve the reporting process, learning to "speak each other's language" and to provide timely information about changes that will significantly affect the broader community.

The Town-Gown reports are required to include information about existing conditions, a narrative of future plans (including, where appropriate, a 10-year time frame), a list of projects underway, maps of real estate and development, and transportation demand management data. In addition, there are institution-specific questions that the Board poses, based upon current planning and development issues relevant to each institution (see Policy 50). The Board also encourages the institutions to report informally on upcoming projects throughout the year, which is proving to be a good way to keep both the Board and the public abreast of issues as they arise, rather than waiting for the annual report, when decisions may have already been made.

Physical Expansion of the Major Institutions

The City does not have the authority to prohibit institutional uses in nonresidential districts, although there are regulations to protect against expansion into lower density residential neighborhoods. Nor was there any City review of the design of institutional buildings prior to the Citywide Rezoning process. However, with the advent of Article 19 project review in the Zoning Ordinance, the Planning Board now reviews the design aspects of new institutional buildings of 50,000 square feet or larger if they lie within 100 feet of a public right of way; if there are significant changes to parking, a traffic study is required.

Harvard University

The Citywide Growth Management Advisory Committee endorsed the concept of "transitional zoning" as a means of addressing the physical impacts of development in higher density districts abutting lower density residential areas. As Harvard realized that there would likely be considerable change near neighbors of the North Yard area (the part of the campus north and east of the Cambridge Common), a process was established for interactions among the university, the neighbors, and

City staff. An early part of that effort was the Hammond and Gorham Streets community process, which resulted in a rezoning establishing a new transitional overlay district along the edge of the North Yard. The Planning Board has granted Article 19 special permits for the Laboratory for Interface Science and Engineering (LISE) building on Oxford Street and the North Yard Sciences Building partially within the Hammond Street Overlay District, each of which had passed through the neighborhood committee process before coming to the Board. Extensive meetings attended by representatives of Harvard, the Agassiz and Neighborhood 9 Committees, and City staff members have helped to bring information to the Board about additional institutional growth issues for the Harvard North Yard area and the Harvard Law School. In late 2006, the Board issued special permits that allow the construction of a major new building for the Law School on Massachusetts Avenue.

In Mid-Cambridge, the lengthy community process for the Center for Governemnt and International Studies (CGIS) facility at Harvard culminated with a special permit case under the provisions of Article 19. That facility is now occupied. In addition, the City's Riverside Neighborhood Study process brought forth a rezoning petition, and subsequently special permits were granted for housing on Harvard-owned sites in Riverside.

Given that the rest of the campus in Cambridge is nearly built out, Harvard acquired extensive land in Allston for future growth, and is undertaking a planning process to determine how to use that land. It is unclear what the effect of the new Allston campus will be on Cambridge, since Harvard's process is just beginning, and has yet to reach conclusions on issues regarding the schools that will be affected, transportation, timing, etc. The Planning Board has asked for ongoing reporting about the interaction of the new campus with the old, and generally about impacts of the new campus development on Cambridge. As a clearer picture emerges of how the university will grow in Allston, transportation impacts will be among the issues of particular concern.

View of Simmons Hall from Fort Washington.

Policy 51

Where tax exempt academic uses are expanded into retail corridors and squares, mixed use development including taxable retail or other commercial development should be incorporated wherever possible, especially at street level, recognizing each retail area for its unique assets, opportunities and functions, and strengthening these aspects when expanding into such areas.

Massachusetts Institute of Technology

A few years ago, there were extensive community reviews of the Simmons Hall dormitory and the graduate student dormitory on Pacific Street before those buildings were brought to the Planning Board for permitting. Citizens wanted to understand the impact of these projects that were to be built near the Cambridgeport neighborhood. Subsequently, the Zesiger Sports and Fitness Center, the Stata Center, and the Brain and Cognitive Sciences buildings went through project review at the Board, responding to the changing circumstances within their existing campus settings.

The Media Lab Extension project is another major project that has received its permits but has not yet finished its fund-raising phase. Finally, there has been planning for the east campus project, which is intended to incorporate facilities for the Sloan School of Management. This project was permitted in early 2007.

Lesley University

In addition to finalizing its master plan for infill and renovation of buildings on its well-established campus within the Agassiz neighborhood, Lesley University will incorporate facilities for the Art Institute of Boston, which is moving to Cambridge following a merger with Lesley. One step in that merger process was to rent dormitory space at the Episcopal Divinity School on Brattle Street at the edge of Harvard Square.

As Lesley moves forward with its master planning process, the Planning Board is interested in the relationship between the Porter Square portion of the campus and the Agassiz neighborhood campus. A specific issue is that the design of buildings along Massachusetts Avenue should address community concerns about maintaining an active retail environment.

Housing Issues for the Institutions

Over the past decade, housing for students and faculty has become a major focus for institutions, as expressed in Policy 52. In the 1993 growth policy document, rent control was still an issue. At the time rent control was ended, Harvard voluntarily helped the City create more than 100 permanently affordable units by selling buildings to the City at below-market prices. Currently, the City's affordable housing program is developing significant numbers of new units, some of which are in projects owned by institutions.

Following a planning effort for the Riverside neighborhood and a subsequent agreement between the City and Harvard, the university has received Planning Board approvals for graduate student/affiliate housing in the Grant/Cowperthwaithe Street area and on the former Mahoney's nursery site. That agreement requires Harvard to convert the former Blackstone power station switch house on Blackstone Street into 33 units of affordable home-ownership housing for income-eligible Cambridge residents. The agreement also requires Harvard to provide a public park at the corner of Memorial Drive and Western Avenue. All of these projects are actively underway.

Policy 52

The city's major educational institutions should be encouraged to provide housing for their respective faculties, students, and staff through additions to the city's inventory of housing units. Effective use of existing land holdings should be a tool in meeting this objective, where it does not result in excessive density in the core campus. In addition, where new housing is to be located within or abutting an existing neighborhood, it should match the scale, density, and character of the neighborhood. The institutions should be encouraged to retain this housing for client populations over an extended period of time. They should consider housing other city residents within these housing developments as a means of integrating the institutional community with city residents.

MIT has been developing dormitories to help solve the problem of housing its students in the very tight regional market. In part, the Institute is trying to reorganize its housing, by providing undergraduate dormitories instead of relying on fraternity houses, which have not succeeded in integrating the students positively into the life of the campus. In addition to the recently completed Simmons Hall and the graduate housing at Sidney and Pacific Streets, a new dormitory has recently been approved by the Planning Board for a site at Albany and Pacific Streets.

Preservation of the City's Tax Base

The 1993 growth policy document lays out the economic quandary posed by institutions in the city: while they stimulate the economy in many ways, they also place burdens on the City's finances (see Policies 53, 54, 55). Payments in lieu of taxes (PILOT) continue be negotiated between the City and each major institution, taking into account the positive contributions made by the schools.

As forecast in the 1993 document, the educational institutions continue to play a very important role in employment in Cambridge. It is still true that 9 of the top 25 employers are institutions, although the rankings may not be exactly the same as in 1993; education alone provides about 35,000 jobs, or 35% of the total jobs available in Cambridge. Harvard and MIT together provided 17,308 of those jobs in 2005.

Commercial Investment

The University Park project, one of the most successful new commercial ventures in the city, was developed through the MIT Real Estate Office, with cooperation from the City and the designated developer, Forest City Enterprises. This success is now seen as a national model, with many communities visiting the project to learn about the agreements that made it possible, and to evaluate whether there are lessons they can take from the experience.

MIT acquired Technology Square as an investment property in the late 90s, and is working to add to the vitality of this project through the provision of more ground-floor retail space there. Given escalating market demand for premium commercial properties, MIT sold this asset in order to profit from the earlier investment. In addition, MIT is developing the former Polaroid properties along Main Street (known as the Osborne Triangle), with the rehab of an historic brick furniture building and a new research and development structure, now occupied by life sciences research companies.

A major economic impact comes from the spin-off effect of scientific research at the city's institutions; in particular the life sciences have spawned a biotech revolution, resulting in many jobs and an increased tax base. This phenomenon is discussed in the City document entitled *Cambridge/Biotech: History in the Making.* One of the most dramatic new developments is the establishment of the Broad Institute, which is an unprecedented joint venture of Harvard, MIT, and the Broad family to expand

Policy 53

Except in circumstances where further institutional growth is appropriate or beneficial to the city as a whole (see Policy 7) the city's institutions should be discouraged from creating new fiscal burdens on the City treasury through the conversion of property from tax producing uses to nontaxable uses, and should mitigate any harmful effects of such conversions through financial compensation.

Policy 54

The institutions' capacity for commercial investment should be directed in part to assist in the transformation of evolving industrial areas and commercial districts, as defined by City policy and elaborated upon through formally established, on going planning discussions.

Policy 55

Where major institutions invest in commercial properties, their willingness to manage those properties partly in response to broader community objectives of diversity and community need, as articulated through the continuing formal dialogue with the City and its residents, should be encouraged, consistent with the institutions' fiduciary responsibilities.

Policy 56

Recognizing the localized nature of their physical presence, the city's smaller institutions should be regulated on an individual basis as provided in the zoning ordinance's institutional regulations and as they are impacted by zoning, urban design, and other City policies.

upon the successes of the Whitehead Institute in genomic research. The building, next to Whitehead Institute, will also feature an interactive museum/education center to help make the complexities of biological research accessible to the general public.

Smaller Institutions

As noted earlier, the many smaller institutions found throughout the city help define its character and enrich its social life (see Policy 56). In addition to the three larger educational institutions, Cambridge College makes its home here. It provides evening adult degree education, and has become a national leader in such programming. While most of its facilities are spread widely throughout the region and nation, the College has established a presence on Prospect Street near Central Square, along with its Massachusetts Avenue location.

The Cambridge Center for Adult Education fits into its Harvard Square context, adding a learning component to the mix of retail and office uses.

The 1993 growth policy report describes in some detail the expansion process for Cambridge Hospital, which by now has settled into its new addition. At present, the focus is on Mt. Auburn Hospital, which plans to expand on its site between Memorial Drive and Mt. Auburn Street, by reconfiguring the main entry, building space for acute medical care use, and expanding its parking facilities. This project has received approvals from the Cambridge Historical Commission, since the hospital includes some older buildings on the National Register, and from the Planning Board under Article 19 for project review. It is under construction.

Mt. Auburn Hospital plans to upgrade its facility with some historical renovations, an improved entry, and more modern features throughout.

Cambridge College on Massachusetts Avenue, halfway between Harvard and Central Squares.

URBAN DESIGN

Urban Design

Design Review

In 1993, project review was only required in certain districts for which extensive planning had been done, such as the East Cambridge Riverfront and Harvard Square. However, it was clearly desirable to extend the geographic scope of review requirements, both to establish a more equitable system in which similar proposals would be treated similarly, as well as to give the community information and an opportunity to comment on upcoming projects. This goal, expressed in Policy 57, was accomplished in the Citywide Rezoning adopted in 2001, which created citywide project review in Article 19 of the Zoning Ordinance. This project review was supplemented by the Eastern Cambridge Rezoning petition, which gave further guidance for reviewing projects in the city's most active development area. Larger projects are required to undergo traffic and urban design review at the Planning Board, while smaller buildings go through a development consultation process at the staff level.

Between 1993 and 2001, projects continued to be designed in development areas where design review had long been required, such as the East Cambridge Riverfront. Following a different model, University Park had a unique zoning framework, which generally allowed projects to proceed without a special permit if they met the criteria in the Agreement for Design Review, and if they were reviewed by the Planning Board. University Park is now complete, with 2.3 million square feet of development, including 674 housing units with at least 150 affordable units, 100,000 square feet of open space, several research and development buildings, a

The Harvard Square Post Office is one of the more recent "infill" buildings built under the provisions of the Harvard Square Overlay District. The design review process helped the project fit into its historical setting.

Policy 57

Design review for new development should be established throughout the city for all areas where future development will be of a scale or quantity that will potentially change or establish the character of the district.

Policy 58

Even in areas where the character of a district is firmly established and new development is likely to be very modest, design review should be required where small scale changes are likely to disrupt the desired district character.

Policy 59

The regulations for all zoning districts in Cambridge should reflect the city's fundamental urban design and environmental objectives: height, setback, use, site development, and density standards imposed should be consistent with or advance those urban design objectives.

East Cambridge Riverfront, c. 1978. The City rezoned the area, created an urban design plan, and began to put together public and private funding to begin redevelopment.

East Cambridge Riverfront, 1991. The redevelopment process resulted in 10 acres of new parkland, including Lechmere Canal Park at the center. A dozen different projects were approved by the Planning Board, for housing, office, hotel, and retail uses. (Photo: Landslides)

hotel, a supermarket, a day care facility, and some ground floor retail. This project fully implemented the urban design vision first committed to paper in 1983, and has received national acclaim as a model for how to transform a former industrial area into a vital mixed-use center.

In Harvard Square, several buildings on "infill" sites went through the Harvard Square Advisory Committee and Planning Board design review process specified in the Harvard Square Overlay District; these include the Omni Travel Building and One Bow Street in the Quincy Square area, and the more recent modernist glass building at 90 Mt. Auburn Street. An important change affecting design review in the square was the establishment, in 2000, of the Harvard Square Conservation District, administered by the Cambridge Historical Commission. This is the first conservation district in a commercial area, and it gives the Commission wide review authority for building exteriors, supplementing the preexisting review processes.

The Central Square Overlay District mandates design review for larger projects there; the most noteworthy one in the last decade was the Holmes project at the main intersection in the square. Here, an undistinguished group of smaller buildings was replaced by a six story mixed-use project, with ground floor retail, some office, and residences on the upper floors. More recently, two multifamily residential projects have been approved following careful review by the community, City staff, and the Planning Board, on sites just off Massachusetts Avenue. One will be on a parking lot and the other is now under construction at the site of a former night club.

The project at 90 Mt. Auburn was designed to assert its modernity while respecting its historical neighbors.

Urban Design Standards

At the time of the growth policy initiative, there were no height limits in the Residence C3, Industry B, and Office 3 zoning districts, but the community felt that there should be reasonable limits on how high buildings would be allowed to be built. Thus, the growth policy document called for the establishment of a height cap. Subsequently, a citywide maximum height limit of 120 feet was adopted in 1997. Also, the document pointed out the undesirability of the open space bonus,

One of the best ways to treat rooftop mechanical equipment is to make it part of the architecture.

Cambridgeport Revitalization Area, c. 1980. The University Park site is in the foreground, with Pacific Street and the lower Cambridgeport industrial area toward the river, and with Brookline Street and the Cambridgeport neighborhood to the right in the picture.

Cambridgeport Revitalization Area, 2004. University Park site is near completion in the foreground, with housing along the Brookline Street neighborhood edge on the right, the Common in the center, and the highest buildings to the left, close to the MIT campus. (Photo courtesy of Forest City Enterprises)

which had allowed greater density on sites next to open space and wide streets, a strategy that was perhaps more understandable in the sixties, when the community was economically depressed and eager for unfettered new development. The bonus was eliminated in 1997.

The Article 19 urban design guidelines directly relate to the suggestions made in *Toward a Sustainable Future* (see Policies 60, 61, and 62). Projects applying for a special permit are judged as to their compliance with the following criteria:

- Responds to existing or anticipated pattern of development
- Is pedestrian and bicycle-friendly
- Mitigates adverse environmental impacts upon its neighbors
- Does not overburden City infrastructure
- Reinforces and enhances complex urban aspects of Cambridge
- Expands housing supply, and
- Enhances and expands open space amenities.

Standards have also been developed for the design of rooftop mechanical equipment, a subject that occupied a committee for a year of deliberation. The basic idea is that such equipment needs to be taken into account early in the building design, rather than left to late in the design process, when it becomes more difficult to harmonize with the rest of the building.

The City is also promoting green design, and requires that projects subject to review show how the building rates according to the nationally promulgated LEED standards. At this point, project proponents are asked to consider the very useful checklist of environmental standards and to explain how the design would rate in that system of measurement.

Policy 60

Urban design and environmental standards should be developed for all areas of the city which are or may be in the future subject to redevelopment or significant new development.

Policy 61

Urban design standards should reflect the historic context within which change will occur while permitting design that is responsive to contemporary circumstances.

Policy 62

As transitions between differing uses are extremely important in a densely developed city, urban design standards should be developed to ensure that these transitions are made properly, respecting to the maximum extent possible the needs of each contrasting use.

OPEN SPACE

Open Space

The open space Policies 63-70 enumerated in 1993 remain relevant today. The limitations inherent in a fully developed city, which influenced the creation of those policies then, continue to shape the opportunities available to the City today in managing its open space resources. The *Report of the Green Ribbon Open Space Committee,* published in 2000, provides a comprehensive assessment of the community's open space and recreational needs, and identifies priorities for acquisition and programming. The report makes clear the challenges facing the City in meeting its open space needs, and provides a guide for meeting that challenge consistent with the policies enumerated in *Toward a Sustainable Future.* Considerable activity has been evident in the intervening fourteen years, in ways anticipated in 1993 and sometimes in unexpected ways.

Use of Open Space Facilities

The Green Ribbon report identifies seventy-eight public open space and recreational facilities in the city, totaling nearly 500 acres. As is to be expected for a dense and complex community like Cambridge, the variety of demands placed on these facilities is enormous: organized sports for school-aged children in soccer, baseball and football; informal pickup games for college students or adults; lunch in the park for office workers; play opportunities for tots with their parents and older children on their own; a quiet retreat for those in retirement, tourists in the city for a visit, or anyone after a busy day; and even in this urban environment, an opportunity to view and experience natural areas and wildlife.

As indicated in the report, the City's strong fiscal position has allowed Cambridge to make significant investments in its existing park facilities, responding to new demands as neighborhoods change and grow, and to actually acquire new facilities to an extent perhaps not easily imagined in 1993. In the past fourteen years, the City has been able to rehabilitate, and sometimes reprogram, many of its parks resulting in a total investment of several million dollars. The plan for the redesign of each park has generally followed extensive consultation with the users of the park and affected residents in the vicinity. Modernization has allowed the City to introduce new kinds of services into the parks, such as computer-programmed water play equipment to eliminate hazards, and pressure-treated wood play equipment in tot lots. Also, designs that failed to live up to their promise have been revised, such as parks that had too much concrete and asphalt, and not enough green space. This ongoing program has had a positive visual and functional impact on neighborhoods as colorful new play equipment has been installed throughout the community.

Policy 65 recognized the unrealized potential of state recreational facilities—which must serve a regional clientele—to meet some of the needs of adjacent Cambridge neighborhoods. Building on that idea, the City has been able to enter into an agree-

Basketball is very popular at the recently renovated Corporal Burns Park in Riverside.

Policy 63

Open space and recreational facilities serving a wide range of functions and clientele, including the elderly and special needs populations, should be encouraged, either through expansion of the existing inventory, through multiple use of existing facilities, or through creative programming of those facilities.

Policy 64

Conservation lands and other environmentally sensitive areas are a vital part of the city's open space system and should be maintained and protected appropriately. Public access to and use of these areas must be carefully planned and balanced with preservation of these resources.

Policy 65

Expansion of Cambridge residents' opportunities to use regional recreational facilities (those owned by the Metropolitan District Commission and the Commonwealth) located in the city should be encouraged, particularly where the adjacent residential community is underserved by local recreational facilities, and when the legitimate regional use of that facility would not be unduly restricted. In addition, there should be increased coordination of recreation programming and planning between the local and regional levels.

ment with the Department of Conservation and Recreation (formerly the MDC) that has allowed the community to gain additional recreational access to Magazine Beach in exchange for financial assistance in rehabilitating the facility, which is still a work in progress.

New Open Space in Development Areas

Policy 66

New open space facilities, including larger ones for organized activities, should be considered for those private developments where the size of the development, the amount of land area and/or the ownership patterns provide the flexibility to accommodate such a facility without loss of economic value for other uses.

Policy 66 suggested the inclusion of new parks in large-scale commercial developments. The central open space at University Park was the prototype envisioned in this policy; University Park Common, which opened in 2000, serves as the centerpiece for the development and a resource for residents of University Park as well as the nearby Cambridgeport neighborhood. With twenty-three acres in a single ownership, University Park is uncommon. There will not be many similar circumstances in the future where a large park can be similarly created.

Nevertheless, the ECaPS Rezoning adopted by the City Council in 2001 envisions the creation of another large public park as part of future development of the underutilized portions of the federal Volpe Transportation Center in the heart of Kendall Square. Zoning is in place to encourage that eventuality should portions of the parcel be made available for private development. Also envisioned in the ECaPS Rezoning, in the North Point project being developed by Jones Lang LaSalle, a dramatic new public park is about to be created in circumstances somewhat similar to University Park. At the center of the 45-acre multiuse project, a five-acre public park was approved by the Planning Board in 2005 and is now under construction. This park, the first of about nine acres of required green space, accompanies the first phase of the development, which also includes two residential buildings and associated new streets. The park will eventually contain a community center, a small pond, man-made wetlands, a portion of the regional multi-use bike and hiking path connecting the western suburbs to the Charles River waterfront, and will also function as a filter and storage area for stormwater runoff from the development.

University Park Common includes grassy lawns at the request of neighbors who participated in the design process.

Additionally, the adjacent Archstone Smith housing development will feature a three-quarter acre green space fronting onto Monsignor O'Brien Highway. A pathway from this space through the Archstone Smith building will lead northward to a small tot lot and then to Jones Lang LaSalle's central park.

The open spaces in both private projects will also relate to the newly created 40 acres of state-owned parkland referred to as the New Charles River Basin. The Cambridge section, called North Point Park, will be a 16-acre riverside promenade along the Charles River. The park is to open in 2007, and in the future, a skateboard park and other recreational uses may be built to complement the waterside paths and lawns now nearing completion.

Another mixed-use project with an important central open space is the project known as Cambridge Research Park, north of Kendall Square along Third Street. A new urban plaza of 1.5 acres was constructed in this mixed-use project, which will ultimately contain more than 1.2 million square feet of development, includ-

North Point Park is one of the principal features of the New Charles River Basin, which was required as mitigation for the impacts of the Central Artery highway ramps.

ing residences, office/research and development, concert halls, and retail. The main plaza serves the public and the tenants in the adjacent office buildings as a lunch space, a performance venue, a place to relax and unwind for three seasons of the year, and includes a skating rink in the winter months.

Acquisition of New Open Space

Acquisition of new open space in Cambridge has always been a challenge, given the scarcity of land, the competition for available sites from other uses (like private or assisted housing), and the high cost of acquisition. Policy 67 and the Green Ribbon report both recognize that difficulty, but also urge the expansion of the open space inventory whenever the obstacles of price and availability can be overcome. Despite those challenges, over the past fourteen years the City has been relatively successful in acquiring new open spaces to serve a variety of functions, through a variety of mechanisms, including purchase.

The Pacific Street Park in Cambridgeport has been active for years as a formal and informal sports field for the neighborhood. It was first leased to the City by MIT in 1995. The fee ownership of this park was then transferred to the City in 2000, after the Institute utilized the development rights available on the park site to construct the Pacific Street dormitory on an adjacent parcel across Sidney Street. The zoning mechanism used to make such a transfer possible ("Transfer of Development Rights") has been adopted elsewhere in the zoning ordinance with the hope that additional parks might be created in East Cambridge and Alewife.

With funds appropriated for the purpose, the City was able to purchase non-conforming commercial buildings in Neighborhood 4 to expand the existing Harvard Street Park. After a long planning effort with the neighborhood, the buildings were demolished in late 2005, and construction of an expanded park is underway.

The MIT dormitory on the lower right took allowable floor area from the park site on the lower left; the dormitory is thus larger than would otherwise be allowed, while the open space of the park is gained for public use. University Park Common is also visible in the upper center of the photo. (Photo courtesy of Forest City Enterprises)

Nearby, the purchase of another old mill building for conversion to affordable housing (the former Squirrel Brand Nut factory) has enabled the City to convert a community garden that had been leased from year to year into a permanent public neighborhood park and community garden. The creation of a playground for the Fletcher-Maynard Academy also occurred as part of this set of open space improvements.

The park space anticipated at Quincy Square in *Toward a Sustainable Future* in 1993 was fully realized in 1998, through the recapturing of excessive paving at the inter-

Quincy Square was an unattractive and hazardous intersection. It was unclear how pedestrians should circulate in this sea of asphalt.

The City transformed Quincy Square into the welcoming eastern entry into Harvard Square, with a plaza, new plantings, and clearly marked pedestrian crossings.

section of four streets. The resulting park and enhanced landscaping is now a focal point at the eastern end of Harvard Square; it was partially paid for by the parking and open space fund established in the Harvard Square Overlay District zoning. Similar park space will soon be emerging from the reconstruction of the equally complicated intersection of streets at Lafayette Square at the eastern end of Central Square. Part of a larger realignment of traffic patterns in association with the development of the University Park complex, the resulting plazas and landscaped sitting areas will give a new urban focus to a formerly inhospitable traffic intersection.

While Policy 67 and the Green Ribbon report both encourage the acquisition of open space where there is a clear need (in the dense eastern neighborhoods particularly), acquisition will probably always be driven in significant measure by available opportunities. Fortunately, recent acquisitions have been in those neighborhoods identified as most in need, but future purchases may have to be in useful locations wherever the land becomes available. With the long-awaited completion of the transfer of the trolley yard parcel in North Cambridge to the City in 2001, the public use of the land to develop affordable housing and green space was secured. The housing is under construction as plans for the open space are being finalized. In addition, the redevelopment of the former Mahoney's site in Riverside will include the creation of a new public park on land that Harvard will deed to the City.

Since 2002, the City has benefited from the state matching fund provided through the Community Preservation Act. A total of $4.7 million has been given to open space projects. To date, these funds have been used for work at the Fresh Pond Reservation and in acquiring open space to protect the Cambridge watershed in Lincoln.

Retention of Open Space

Parks in cities have often been vulnerable to the pressing demands for alternate uses. Certainly, vacant land in a densely developed urban area may be attractive for many worthy projects, from affordable housing to municipal facilities. Policy 68 urges resistance to converting park space to any other use except in extraordinary circumstances, and Cambridge has been faithful to that objective.

There have been instances of construction on the periphery of parks, with either inconsequential impacts or with significant enhancement of the park facility:

- the construction of the Frisoli Youth Center at the Harrington School and Donnelly Field, which provides a community center function logically related to the two other uses on the site.
- the conversion of Neville Manor into an assisted living facility at Fresh Pond, where the degraded environment was improved with the construction of a well-designed building and landscaping;
- the recently approved addition to the Main Library adjacent to Joan Lorentz Park, where the project will actually result in an increase in the area of open space at the site;

Policy 67

Acquisition of publicly owned or administered open space should be made in those dense residential areas clearly deficient in all forms of open space, but only where significant fiscal resources are provided through federal or state acquisition programs or a substantial portion of the cost is borne privately; facilities of modest size and flexible in use characteristics, located close to the homes of the persons for whom they are intended should be encouraged.

Policy 68

Only under extraordinary circumstances should existing open space facilities be eliminated from the city's inventory for other uses; small, passively or merely visually used facilities, should not be undervalued in this regard merely for lack of intensive or active recreational use.

Policy 69

The city should encourage the permanent retention and protection of useful, effective, attractive private open space whether publicly accessible or not. Community use of private recreational and open space facilities in the city should be encouraged at reasonable levels where the private function of those facilities would not be impaired and where the recreational activity provided by the private facility is not well served in available public facilities.

- and the reconstruction of the water treatment plant (an essential element of the water distribution system of the city, which is the reason for the very existence of Fresh Pond Reservation) that has had the secondary effect of significant enhancements to the recreational quality of adjacent portions of the reservation.

Maintenance of Open Space

The City continues to make substantial investments in its park facilities. The renovation of Russell Field was recently completed, and includes a state-of-the art field with artificial turf and a field house for the high school football team. Danehy Park has continued to improve with, among other modifications, the installation of very successful artificial turf on the main soccer playing field. A master plan has been developed for the Fresh Pond Reservation, and portions of that plan are scheduled for implementation by the City and the Water Department.

The water treatment plant project included significant landscaping work in addition to the new building, which now functions as a landmark for this part of West Cambridge.

Policy 70

Repair, maintenance and timely upgrading of existing facilities should be the City's highest fiscal priority with regard to open space and recreational facilities. The City should explore, and adopt as appropriate, mechanisms whereby the private sector can reasonably provide, assist in and/or contribute to the maintenance of publicly useable open space and recreational facilities.

Recent park renovations have been completed at neighborhood parks such as Dana Park in Cambridgeport and the King School Playground in Riverside, as well as Bergin Park and Reverend Williams Park in North Cambridge. Smaller parks also renovated include Franklin Park in Riverside, Lowell School Park in West Cambridge, and the Maple Avenue tot lot in Mid-Cambridge. The inclusion of new computer-controlled waterplay in many of the parks across the city has further broadened the appeal of the parks.

Recently completed renovations to major neighborhood parks, such as Gold Star Mothers Park in East Cambridge and the Baldwin School playground in Agassiz, as well as planned improvements to the Tobin School Playground, will continue to

make high quality parks and open space available to neighborhoods throughout the city. Many parks are under maintenance contracts with private firms managed by the Public Works Department. Everywhere, well-maintained or refurbished parks are highly valued features of the community's neighborhoods and commercial centers.

Before it was redesigned, Franklin Park had become a rather dark place, and the many steps and hard surfaces kept it from being well used.

After renovations were done, Franklin Park has received many plaudits as a greatly improved space.

Toward A Sustainable Future

Cambridge Growth Policy

UPDATE 2007

ENVIRONMENT AND SUSTAINABILITY

Harvard's 90 Mount Auburn building has a geothermal system for heating and cooling.

Environment and Sustainability

Sustainability was defined in the 1993 growth policy document as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." This underlying principle for the growth management effort continues to be an important overarching goal for the community. Progress towards sustainability has been made in the intervening years, but much more needs to be done, particularly in the area of climate change. The growth policies articulated in the 1993 plan, and noted in the sidebars in this document, address particular topics such as land use, urban design, transportation, housing, and economic development; they should also be considered holistically, recognizing that meeting the goal of sustainability requires a series of actions spanning the entire range of planning endeavor. In addition to considering traditional planning topics, the achievement of a sustainable future requires addressing issues of public health, greenhouse gas emissions, energy use, and waste management—topics that have gained importance locally and nationally in the intervening years.

Cambridge Climate Protection Plan

Since May 1999, Cambridge has been a member of the Cities for Climate Protection (CCP) campaign, a project of the International Council for Local Environmental Initiatives (ICLEI), which is a worldwide association of municipal, county, and other local governments that addresses environmental problems at the local level. As part of its CCP commitments, the City has set a target of reducing greenhouse gas (GHG) emissions by 20 percent below 1990 levels by 2010. Strategies and actions to achieve this reduction are outlined in the *Cambridge Climate Protection Plan,* adopted by the City Council in December 2002. The Mayor and City Council have also endorsed the U.S. Mayors Climate Protection Agreement, supported by the U.S. Conference of Mayors. The agreement commits the signatories to strive to meet or surpass the Kyoto Protocol target, calls on state and federal governments to do the same, and urges the U.S. Congress to pass the Climate Stewardship Act. As of November 2006, 326 U.S. mayors have signed the agreement.

There is a national trend of increasing GHG emissions, and in Cambridge, GHG emissions increased by 27.2% between 1990 and 2003. This increase is attributable to a combination of factors including emissions from transportation and solid waste disposal, but it is primarily related to commercial and institutional building energy consumption.

The New England Regional Assessment, funded by the federal government in August 2001, predicted that average temperatures in our region are likely to increase by 6 to 10 degrees Fahrenheit within the next 100 years. Among other effects, this may create habitat for disease-carrying insects that do not now live here; change rain and snowfall patterns, affecting water supplies, agriculture, and the frequency of flooding; cause changes in natural habitats that will eliminate some species from

our area and introduce new ones; and cause sea-level rise and greater coastal storm damage. The Union of Concerned Scientists' report on Northeast climate impacts, issued in October 2006, projects that sea levels will rise by 2 to 3 feet by the end of the century, with even greater increases if emissions are not controlled. This effect could expose areas along the Charles River to increased risk of storm surge flooding.

The vision of the *Cambridge Climate Protection Plan* is to be smarter and more resourceful about the manner in which buildings use energy, people and goods are transported, and waste is managed. Cambridge is in a position to apply many existing technologies and approaches to tackle this problem and to take advantage of emerging trends and resources in energy, transportation, land use, and waste management that hold promise to change for the better the way our city works and the way we live. A committee of residents, businesspeople, institutional representatives, and City staff has been established to advise the City and monitor the implementation of the plan.

Land Use and Energy

Cities are warmer than surrounding, less-developed areas. This urban heat island effect results from the greater percentage of hardscaped, heat-absorbing surfaces in urban areas, fewer trees and other vegetation to offset the effect of hard surfaces, and lower albedo, or solar reflectivity of surface materials. The resulting increase in temperature not only increases smog, but also results in higher energy use, further aggravating the situation.

The key mechanisms to address the urban heat island effect are to increase the amount of vegetation that shades heat-absorbing surfaces and to increase the albedo of surfaces. This includes interventions at both public and private levels, such as increasing the number of street trees, adopting policies to encourage the planting of trees in parking lots, construction of green roofs, encouraging the installation of

The City Hall Annex has been renovated to LEED standards.

white roofs, and the use of lighter-colored road and sidewalk surfaces. The Department of Public Works is developing a GIS-based inventory of street trees and trees in City parks, and the Community Development Department has assessed the tree canopy cover of Cambridge. As of September 2000, the city had a tree canopy cover of about 20 percent, which is typical of urban communities. The assessment estimated that Cambridge's urban forest provides at least $7.5 million annually in environmental services such as stormwater mitigation and air pollution attenuation.

Leadership in Energy and Environmental Design (LEED)

Energy use associated with buildings accounts for about 82% of Cambridge's greenhouse gas emissions—18% from residential buildings, and 64% from nonresidential (commercial, industrial, and institutional) buildings. Dramatic reductions in building energy use are necessary to meet the City's GHG reduction goal. Green buildings, also characterized as "high-performance" buildings, typically save on energy costs and contribute significantly to improved health and productivity of building occupants.

The project review special permit process, adopted as part of the 2001 Citywide Rezoning for review of all large projects in the city, requires proponents to outline how the proposed development performs on the LEED checklist. The evaluation criteria encourage building and site design that use "natural resources and energy resources efficiently in construction, maintenance, and long-term operation of the building, including supporting mechanical systems that reduce the need for mechanical equipment generally and its location on the roof of a building specifically." Compliance with LEED certification standards and other evolving environmental efficiency standards is encouraged.

The Genzyme building received a platinum rating from LEED. Its many green features include mirrors on the roof that track the sun to send light down into the beautiful atrium at the heart ot the building's interior.

Cambridge has made a commitment to green design of both new and substantially renovated municipal buildings. Recent construction such as the renovated City Hall Annex, the Russell Field Athletic Center, the ongoing Main Library renovation, the West Cambridge Youth Center, and planned new Police Department headquarters all incorporate many green design elements. The City Hall Annex has received a LEED Gold rating, and the Russell Field fieldhouse is expected to receive a LEED Silver rating. The award-winning City Hall Annex incorporates a ground source heat pump system in place of a conventional boiler and air conditioning system, has a 26 kilowatt solar photovoltaic array, and features an energy efficient building envelope and daylighting strategies. As a result, the Annex uses half of the energy per square foot compared to other City buildings.

Green building design has been embraced by institutions and some private developers in Cambridge. As of November 2006, four buildings in addition to the Annex have received LEED certification. In addition, three others have been registered with the intent of achieving LEED, and owners of other projects have indicated plans to seek LEED certification. Genzyme Center in Kendall Square is the first building in the Northeast to have achieved LEED Platinum rating, and is the largest

Platinum-rated building in the country to date. Genzyme's headquarters, which is located on a remediated brownfield site, features a double-wall façade system to reduce solar gain, an atrium that serves as part of the ventilation sytem and daylighting strategy, a 20 kilowatt solar photovoltaic system, water conserving features, and environmentally friendly building materials.

Harvard University is using LEED extensively for its major projects. To date, five Harvard projects have received LEED certification and nine others have been registered with the intent to achieve LEED certification in Cambridge and Boston. Harvard has applied to the U.S. Green Building Council for a LEED Platinum rating on the recent renovation of 46 Blackstone Street. MIT has adopted a LEED Silver Plus goal for its projects. The Stata Center and the Brain and Cognitive Sciences Building have been registered for LEED certification.

Energy Efficiency and Renewable Energy in Existing Buildings

While ensuring that new buildings are constructed in an environmentally-conscious manner is important, the existing building stock is and will continue to be the more significant source of environmental impacts. To address energy use in its own facilities, the City has established the Energy Management Work Group, an inter-departmental committee working to improve energy performance at municipal facilities. The work group is setting up a Web-based energy information system to track usage, conducting engineering assessments of buildings, and implementing upgrades such as boiler replacements, lighting improvements, and replacement of motors.

Businesses are also working to make their facilities more efficient. Cambridge Savings Bank has been able to attain the federal Energy Star label for seven of its buildings, including the Harvard Square headquarters. Between 2001 and 2004, the bank reduced overall energy use by 13% while expanding its square footage by 16%, reducing its energy use per square foot by 25%. Pfizer, Inc. has been able to reduce its electricity use by 400,000 kilowatt-hours annually, saving about $50,000 in utility costs per year, through various improvements such as installing occupancy sensors and variable speed drives on air handlers.

Clean Energy and Sustainable Fuels

Cambridge has made a commitment to clean energy, and has contracted with TransCanada, the City's electricity supplier, for 700,000 kilowatt-hours of renewable energy certificates to offset its GHG emissions. The City Council has endorsed a goal of 20% of municipal electricity use coming from renewable sources by 2010. The City is working with ThinkEnergy, an environmental consulting firm, and other consultants to assess its options including the purchase of additional renewable energy certificates, ownership of generation assets, and installation of renewable energy sources in City facilities.

Purchasing of green power, or electricity generated by renewable energy sources, has also become a more common practice among businesses and institutions. For

example, Whole Foods Market is buying enough renewable energy certificates from wind power projects to offset greenhouse gas emissions for all of its stores nationally. Direct installations of solar energy systems have reached 111 kilowatts of capacity in Cambridge. Porter Square Shopping Plaza has the most visible installation, with a 20-kilowatt photovoltaic system lining its roof.

While the City's Transportation Demand Management (TDM) program encourages the use of non-automobile means of transportation, there is also emphasis on ensuring that vehicles use sustainable fuels and generate less pollution. The City has partnered with MIT for an $83,000 grant from the U.S. Environmental Protection Agency (EPA) to install oxidation catalyst devices in 34 City-owned vehicles. These devices will reduce particulate pollution. In 2003, Daimler Chrysler gave 20 GEM neighborhood electric vehicles to the City for use by several departments. Additionally, the Water Department has a compressed natural gas (CNG) pickup truck that is deployed in the Cambridge watershed. Furthering these efforts, the City Manager established the Green Fleet Committee to develop policies and procedures that incorporate fuel economy and pollution reduction into decisions for purchasing new vehicles.

Harvard University has converted its diesel vehicle fleet to B20 biodiesel, which consists of 20% vegetable oil. Recently, one of its recycling trucks was converted to run on 100% waste vegetable oil collected from one of the dining halls.

Recycling and Waste Prevention

Jointly with MIT, Harvard, the Cambridge Health Alliance, and others, the City has pledged to increase its recycling rate to 40%. The Department of Public Works operates the curbside recycling program for residences and some businesses, a drop-off center, as well as recycling in City buildings, schools, public areas, and at festivals. In September 2006, the Department of Public Works, with support from the state Department of Environmental Protection, launched an organics collection service for private businesses and institutions which will divert food waste and other plant-based waste from landfills and incinerators. Recycling of construction waste has become more common and the state is beginning to impose a ban on construction waste going to solid waste facilities. US Gypsum has started a drywall recycling facility in Cambridge to collect old gypsum board for reuse.

Cambridge Climate Leader Program

The Energy Star Recruitment pilot program enlisted ten businesses in the federal Energy Star program during the spring of 2005. Participants received technical assistance and were referred to NSTAR for rebates. The newly launched Cambridge Climate Leader Program expands this principle to encourage businesses to be more energy efficient, utilize renewable energy, reduce automobile dependence, and reduce waste. In a matter of months, fourteen businesses had enrolled in the program and the level of interest appears to be high. Since 1999, the City has recognized businesses and organizations for their environmental initiatives as part of GoGreen Month, which is held each spring.

Since 2004, the City has organized an Energy Fair as part of Danehy Park Family Day. Participants have included NSTAR, Green Decade/Cambridge, and the Massachusetts Energy Consumers Alliance. In 2006, an annual Home & Energy Fair was launched to provide hands-on demonstrations and practical information for residents interested in energy efficiency and renewable energy. City staff members are also available to organize and help coach Ecoteams, which are resident groups working together to reduce their household energy use, water use, and waste generation.

Tracking of Progress

The City maintains and periodically updates a greenhouse gas (GHG) emissions inventory and tracks actions undertaken by all sectors of the community to reduce emissions. The inventory helps the City track its environmental performance and measure progress towards the goal of reducing GHG emissions by 20% by 2010.

Environmental performance is also a growing concern of businesses and institutions. A number of businesses and institutions located in Cambridge track their own greenhouse gas emissions. Businesses that actively manage their environmental performance have been documented to be better risks for investors. Corporate environmental responsibility has also become a factor in recruiting and retaining employees.

There are several Cambridge businesses that are involved with environmental technologies and practices, such as Nuvera (fuel cells), Greenfuel Technologies (carbon capture and algae-based fuel), TIAX (batteries and fuel cells), Metabolix (bio-based plastics), PlanetTran, and ZipCar.

Transportation

Cambridge is eminently walkable due to its density and mix of uses, and the City-wide Rezoning of 2001 incorporated incentives in the zoning ordinance to continue the mixing of uses throughout the city and thus encourage even more walking. Despite the walkable quality of Cambridge, many trips that could be made on foot, by bicycle, or by transit are still made by car. Although transportation is not the most important source of GHG emissions in the city, contributing only about 12% of total emissions, automobile trips still add to the pollution and heat island effect, use nonrenewable fuel resources, create congestion, and also degrade the environment for people using other modes such as walking or bicycling.

Emissions of GHGs and pollutants come from vehicles that use gasoline and diesel. The amount of emissions is a function of the fuel economy of the vehicle and the number of miles traveled. Nationwide, car ownership is increasing at a faster rate than the population, and people are traveling more for work and leisure; at the same time, the recent trend has been toward larger, lower fuel economy vehicles. Together, these trends lead towards more emissions of greenhouse gases and other air pollutants. Working to minimize vehicle emissions and reduce vehicle miles traveled are important both for improved public health and for reducing pollution. The City's bicycle and pedestrian programs are improving facilities for walkers and cyclists (more discussion on this topic can be found in the Transportation section). Additionally, relating building and site design to pedestrian, bicycle, and transit facilities is being encouraged through project review and other means. Since 1998, the City's PTDM Ordinance has required developers who are adding parking to the city's supply to prepare a TDM plan which includes actions to reduce drive alone trips to work, such as subsidizing employees' transit costs.

Stormwater Management and Low Impact Development

The buildings and large amounts of paved areas in cities create impermeable surfaces that do not allow absorption of rainwater and resulting recharge of groundwater, but instead result in runoff to the storm drains. Buildings, streets, parking lots, and pavement all contribute to this problem. Runoff not only burdens the stormwater collection system and increases the possibility of downstream flooding, it also fails to allow an opportunity for the removal of pollutants, which instead get transported to the streams and rivers. In addition, parking lots and paved surfaces often add pollutants, such as oil dripping from engines, to the runoff. Redevelopment of private sites offers the opportunity to begin to address this environmental burden from the past.

All areas within the 100-year floodplain of a water body are subject to review by the Conservation Commission under the state Wetlands Protection Act, which imposes rigorous stormwater management and permeability standards. Parts of Cambridge in the Alewife area and a narrow area adjacent to the Charles River are subject to this review. The City's Department of Public Works has established new regulations

The former Kendall fire station was moved to the front of its site on Main Street, and reused as an inn.

that require all significant development sites to accommodate up to the 25-year storm discharge on-site for a period of time and that encourage the use of Low Impact Development (LID) techniques. LID is an approach to managing stormwater on-site in a sustainable, environmentally sensitive fashion and includes mechanisms such as green roofs, stormwater management wetlands, detention basins, bioswales and rain gardens to manage the quantity, quality, and rate of flow of stormwater.

LOOKING TOWARD THE FUTURE

An important component of all redevelopment projects in Cambridge has been the creation of pleasant open space systems.

Looking Toward the Future

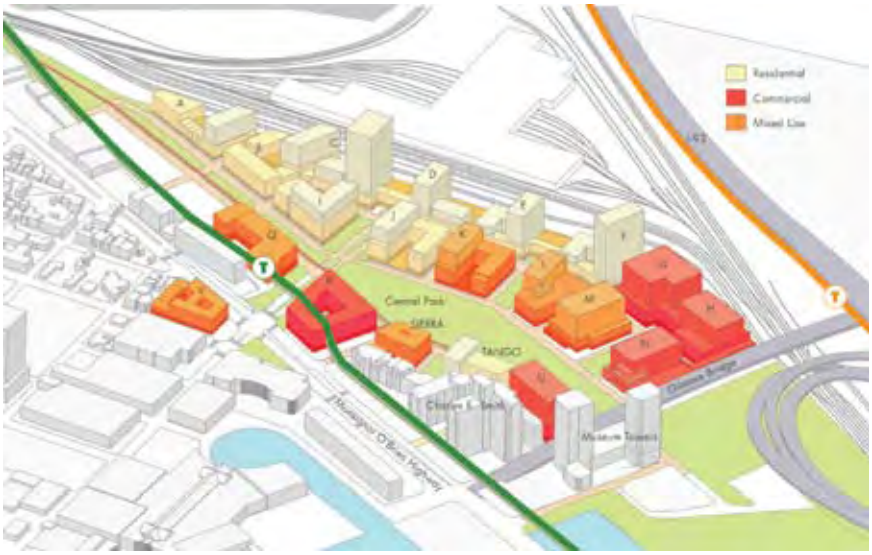
As City staff and the Planning Board update the 1993 growth policy document, it is striking how relevant the policies have remained; we expect they will also be useful in dealing with likely future adaptations that the community may experience. As the city moves forward, it is worth revisiting the chapter in *Toward a Sustainable Cambridge* entitled "A Vision for Cambridge." In that chapter, the vision for Cambridge is described as "conserving, respecting the past, while not suggesting that land uses in Cambridge remain frozen or static. It builds on the recognition that Cambridge works and human diversity works. The current mix of urban form, scale, density, and mix of uses is worth sustaining and enhancing, both in existing neighborhoods and commercial districts, and in the older industrial areas." Surely that broad vision remains worthy today, as do the series of descriptive phrases that accompanied it:

- A vibrant, stable population with people of diverse backgrounds.
- An environment where families can thrive.
- Good housing available to a wide spectrum of people.
- Significantly reduced auto traffic.
- A national model for environmental responsibility.
- A system of beautiful, well-maintained, and accessible parklands.
- A renowned system for training workers.
- A thriving economic base.
- Vital and distinctive retail centers.
- Strengthened and stabilized neighborhoods which retain their distinctive flavor.
- A model for effective citywide design review.
- A system of comprehensive, high quality city services.
- An ongoing, successful process for addressing growth and development concerns.

From the village of the 1600s where Harvard Square now stands, to the emergence of the village near Lechmere Square in the 1800s, to the early reuse of industrial areas in the late 1900s, to the ongoing transformation of the former rail yards in North Point into a vibrant mixed use neighborhood, the city continues to be a special place with a complex urban structure. There are many positive aspects to that history that will help the city in its future growth.

Certainly, economic adaptability itself is an important attribute. Not so long ago, it did not seem likely that Cambridge would succeed in its revitalization. In the late 1970s, for example, banks were unwilling to give loans for the expansion of an East Cambridge hotel, because it seemed like a bad investment. Unemploy-

The drawing at the top shows how the North Point area is envisioned to be developed in the coming years. The aerial photo in the middle shows the first residential projects under construction. The montage at the bottom gives an idea of how the entire area will look once all the parts of the project have been built. (Images courtesy of Jones Lang LaSalle)



ment was high, and plans like the East Cambridge Riverfront Plan were skeptically viewed as exercises in unrealistic optimism. Now, a new district thrives there, with a mix of new buildings and many older industrial structures reused for housing or business use. Change has continued beyond the 1980s development experience, as the communications and software industries that then dominated have been largely supplanted by life sciences enterprises.

Another essential characteristic of Cambridge is its diversity, not only in its businesses and institutions, but also in its housing types and, most importantly, the many kinds of people who live here. Partly as a result of the housing incentives in the recent citywide rezoning and partly because the market for housing has been very strong, thousands of new dwelling units, with a required affordable component, have been added to the city's housing stock, mostly in relatively dense structures in former industrial districts. For the first time in decades, there is a modest rise in population even as households become smaller, and as more of these projects come to fruition, the increase is likely to continue. The former industrial districts that were depressed in the 1970s are seeing new life. This new housing phenomenon is complemented by the stability of the long-established neighborhoods, which have become ever more desirable as places to live.

The Challenges Ahead

Cities are ever evolving places, both incubators of change and reflections of broader forces around them. As we look out to a longer planning horizon, say 20 to 50 years, what kinds of trends, issues, and factors may be of consequence to future growth policies?

In this last section we begin to suggest some of the trends that are likely to influence the planning challenges of the future.

1. Demographics indicate that the city's population is getting older, families smaller and with fewer children. Income inequality appears to be growing. How will changing demographics impact the physical environment, the demand for city services, needed public investment, our sense of community and social cohesion?
2. We have lived through two recent development booms, in the 1980s and again in the late 1990's/early 2000's. If the city wants to continue to evolve, we may face some difficult choices, such as allowing higher levels of density or more "tear downs" to make room for new development, or, alternatively, adopting a low-growth scenario.
3. The last 10 to 15 years have seen the explosion of the Internet revolution. What impact will the world wide web and other communications technologies have on the retail sector? The city's educational institutions? Business in general? As more communication takes place via technology and not face to face, what will that mean to our sense of place and to the vitality of the city as a place to work, study, shop and play?

4. Today, the biotechnology sector (along with education and governmental services) is a backbone of the local economy. How will increasing competition, both national and international, affect the health of our business climate, the number of local jobs, tax revenues, the uniqueness of our educational and labor assets?
5. The city is beginning to change physically. Over the last decade, we have begun to see a somewhat more vertical city, with more high-rise apartments and condominiums. What impact, if any, will these physical forms have on civic life? How will these new communities be woven together with the city's more traditional neighborhoods?
6. The demand for housing that is affordable to regular working families and individuals is not likely to abate. In addition, Cambridge is an old city with a large inventory of infrastructure services needing modernization. Will the financial resources, particularly from the federal and state government, be there to support the city's affordable housing, workforce development, modernization efforts and other programs? Without those efforts, what will happen to the city's economic diversity?
7. As Harvard University builds out its property in the Allston neighborhood of Boston, how will the city of Cambridge be affected? Will the university's center of gravity shift away from Cambridge? What will happen to any vacated properties on this side of the river? How will Harvard's need to move students, faculty and workers across the river impact traffic on Cambridge streets and in our neighborhoods? What impact will Harvard's new presence in Boston have on regional transportation investment?
8. Patterns of transportation will continue to be central to the quality of life in the city. It will be a continual challenge to get people out of their single occupancy vehicles, particularly those moving to the outer suburbs, and onto public transit as well as walking and biking. Will our ability to innovate keep pace with the environmental and quality of life challenges posed by the automobile? Will those living elsewhere in the state share our enthusiasm for meeting that challenge?

A continuing willingness to look at what is essential to conserve in the community, balanced by a desire to be relevant to current society and a willingness to accept change, will help Cambridge move positively into the future. These growth policies will be tested, and another retrospective and reevaluation should be worthwhile in another ten years or so.

GROWTH POLICY TABLES

The Central Square project created wider sidewalks and provided benches to accommodate the area's lively pedestrian activity.

Growth Policy Tables

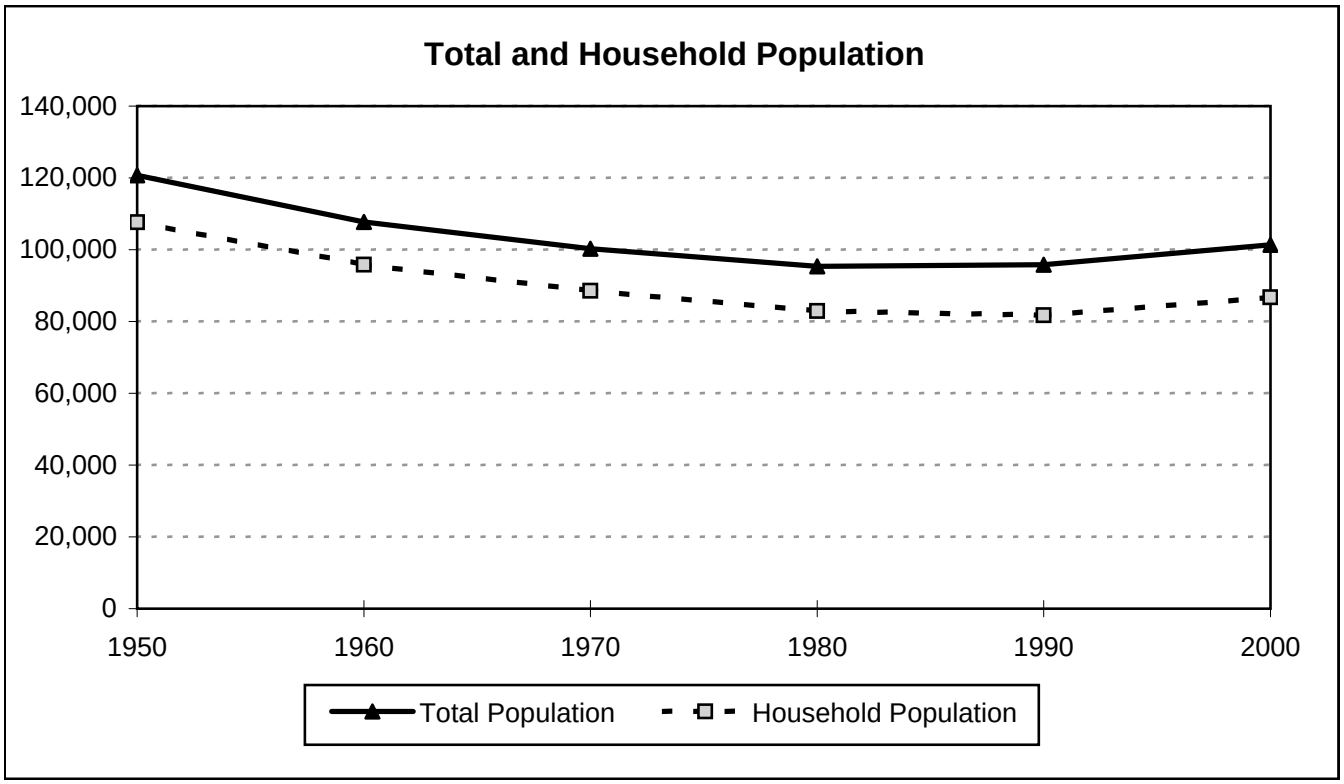
Population and Households

Cambridge has undergone significant changes in population characteristics over the past fifty years. The trends seen in the 2000 census include a 5.8% increase in the total population over the previous decade to 101,355 residents, the beginning of a substantial increase after three decades of reduced or stable numbers. Household size has continued to decline, and Cambridge has a larger proportion of single person households than most other communities in the state. The proportion of persons under 18 and over 65 has declined over the past several decades. Cambridge residents are more likely to be people of color, foreign born or speak a language other than English at home.

Total, Household and Group Quarters Population and Population Density: 1950 - 2000

Year	Population	Household Population	Group Qtrs. Population[1]	% Living in Group Qtrs.	Dormitory Residents[2]	Population Per Acre
1950	120,740	107,676	13,064	10.8%	--	29
1960	107,716	95,778	11,938	11.1%	--	26
1970	100,316	88,502	11,859	11.8%	--	24
1980	95,322	82,888	12,434	13.0%	10,854	23
1990	95,802	81,769	14,033	14.6%	11,931	23
2000	101,355	86,692	14,663	14.5%	13,199	25

1. *Residents of Group Quarters include residents of college dormitories, hospitals, nursing homes, group homes and jails. All persons who do not reside in group quarters reside in households.*
2. *Refers to college dormitory residents, who are a subgroup of group quarters residents.*



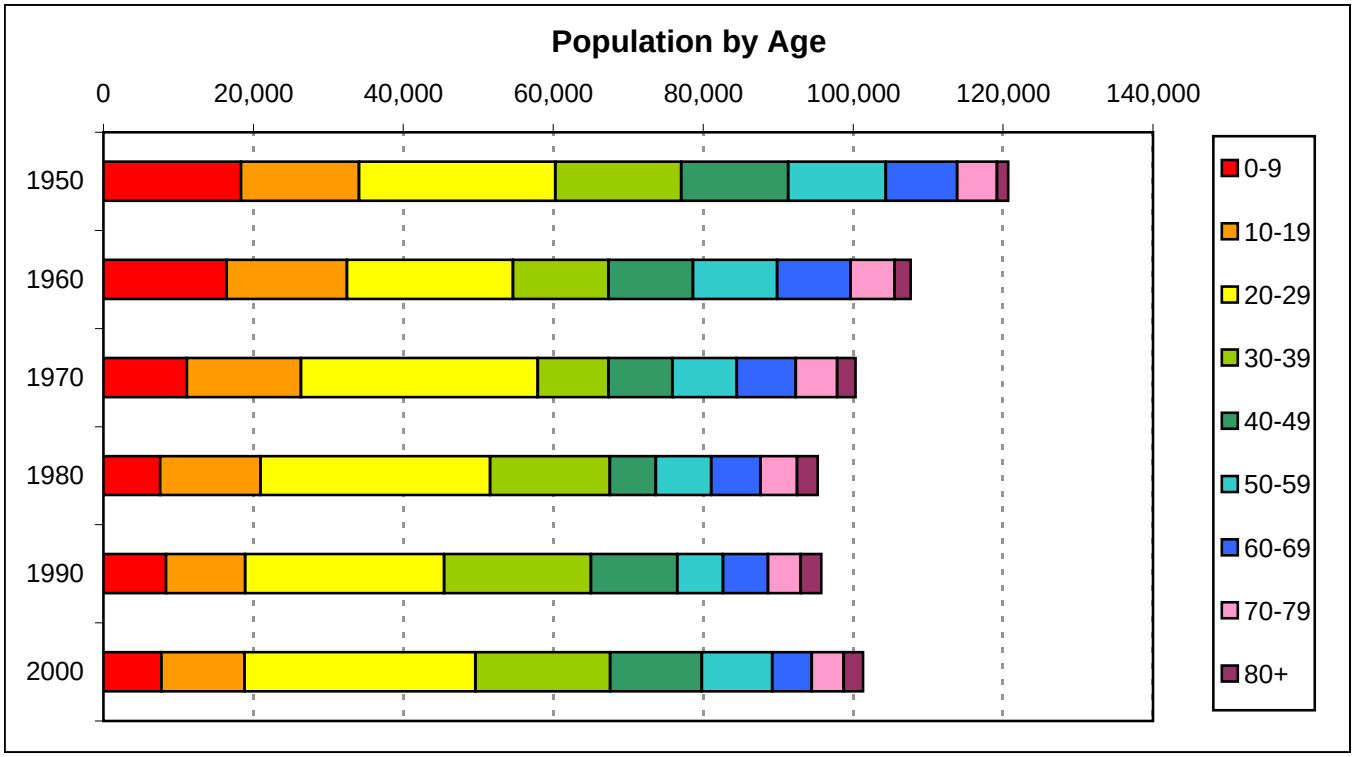
Sources: U. S. Census, Massachusetts General Characteristics, 1950; Massachusetts General Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Age Structure: 1950 - 2000

	1950	1960	1970	1980	1990	2000
0-9	18,344	16,425	11,156	7,561	8,338	7,727
10-19	15,759	16,067	15,228	13,426	10,594	11,102
20-29	26,196	22,147	31,559	30,596	26,529	30,811
30-39	16,771	12,740	9,462	15,983	19,589	17,967
40-49	14,283	11,274	8,496	6,140	11,506	12,208
50-59	13,028	11,226	8,590	7,386	6,125	9,405
60-69	9,498	9,785	7,880	6,563	5,991	5,256
70-79	5,319	5,894	5,514	4,877	4,361	4,269
80+	1,542	2,158	2,476	2,790	2,769	2,610
Median Age	30.1	29.6	26.8	28.6	31.1	30.4
Persons Under 18	28,782	26,922	20,155	14,977	13,612	13,447
Persons 65 & Older	11,151	12,617	11,700	10,924	10,071	9,282
Total	**120,740**	**107,716**	**100,361**	**95,322**	**95,802**	**101,355**

	1950	1960	1970	1980	1990	2000
0-9	15.2%	15.2%	11.1%	7.9%	8.7%	7.6%
10-19	13.1%	14.9%	15.2%	14.1%	11.1%	11.0%
20-29	21.7%	20.6%	31.4%	32.1%	27.7%	30.4%
30-39	13.9%	11.8%	9.4%	16.8%	20.4%	17.7%
40-49	11.8%	10.5%	8.5%	6.4%	12.0%	12.0%
50-59	10.8%	10.4%	8.6%	7.7%	6.4%	9.3%
60-69	7.9%	9.1%	7.9%	6.9%	6.3%	5.2%
70-79	4.4%	5.5%	5.5%	5.1%	4.6%	4.2%
80+	1.3%	2.0%	2.5%	2.9%	2.9%	2.6%
Persons Under 18	23.8%	22.3%	16.7%	12.4%	11.3%	11.1%
Persons 65 & Older	9.2%	10.4%	9.7%	9.0%	8.3%	7.7%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Age Structure: 1950 - 2000



Sources: U. S. Census, Massachusetts General Characteristics, 1950; Massachusetts General Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Detailed Racial and Hispanic Population: 1980 - 2000

	1980[1]	% 1980 Total	1990[1]	% 1990 Total	2000	% 2000 Total
White, Non-Hispanic	75,793	79.5%	68,550	71.6%	65,425	64.6%
Black, Non-Hispanic	10,086	10.6%	12,178	12.7%	11,627	11.5%
American Indian or Alaska Native	184	0.2%	288	0.3%	213	0.2%
Asian or Pacific Islander (All)	3,612	3.8%	8,081	8.4%	12,113	12.0%
Chinese	1,571	1.6%	3,616	3.8%	4,854	4.8%
Asian Indian	705	0.7%	1,386	1.4%	2,720	2.7%
Korean	493	0.5%	1,302	1.4%	1,901	1.9%
Japanese	609	0.6%	734	0.8%	943	0.9%
Filipino	126	0.1%	250	0.3%	265	0.3%
Vietnamese	67	0.1%	216	0.2%	235	0.2%
Other Asian/Pacific Islander	41	<0.1%	577	0.6%	1,195	1.2%
Hispanic (Any Race)	4,536	4.8%	6,506	6.8%	7,455	7.4%
Mexican	496	0.5%	801	0.8%	1,175	1.2%
Puerto Rican	1,583	1.7%	1,875	2.0%	1,637	1.6%
Cuban	279	0.3%	254	0.3%	270	0.3%
Salvadoran	--	--	--	--	567	0.6%
Dominican	--	--	--	--	424	0.4%
Columbian	--	--	--	--	378	0.4%
Other	2,178	2.3%	3,576	3.7%	3,004	3.0%
Other Non-Hispanic[2]	1,169	1.2%	350	0.4%	4,580	4.5%
Total Population	95,322	100.0%	95,802	100.0%	101,355	100.0%

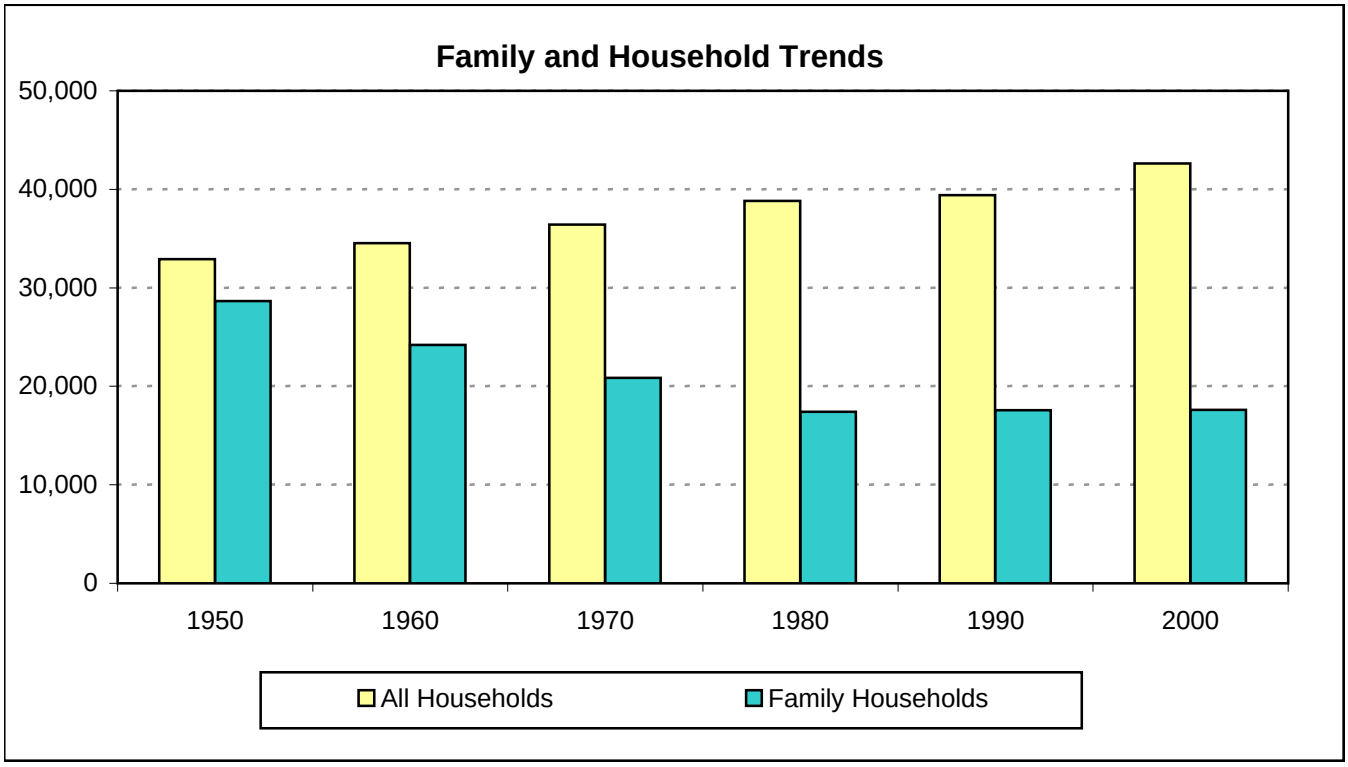
1. *Figures do not sum to total population For 1980 and 1990 both American Indian persons of Hispanic origin and Asian persons of Hispanic origin are double counted. For 2000 Asian persons of Hispanic origin are double counted.*
2. *Includes persons who are not of Hispanic origin and reported race as "Other" or, in the case of the 2000 Census, reported two or more races.*

Sources: U. S. Census, Decennial Census, STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

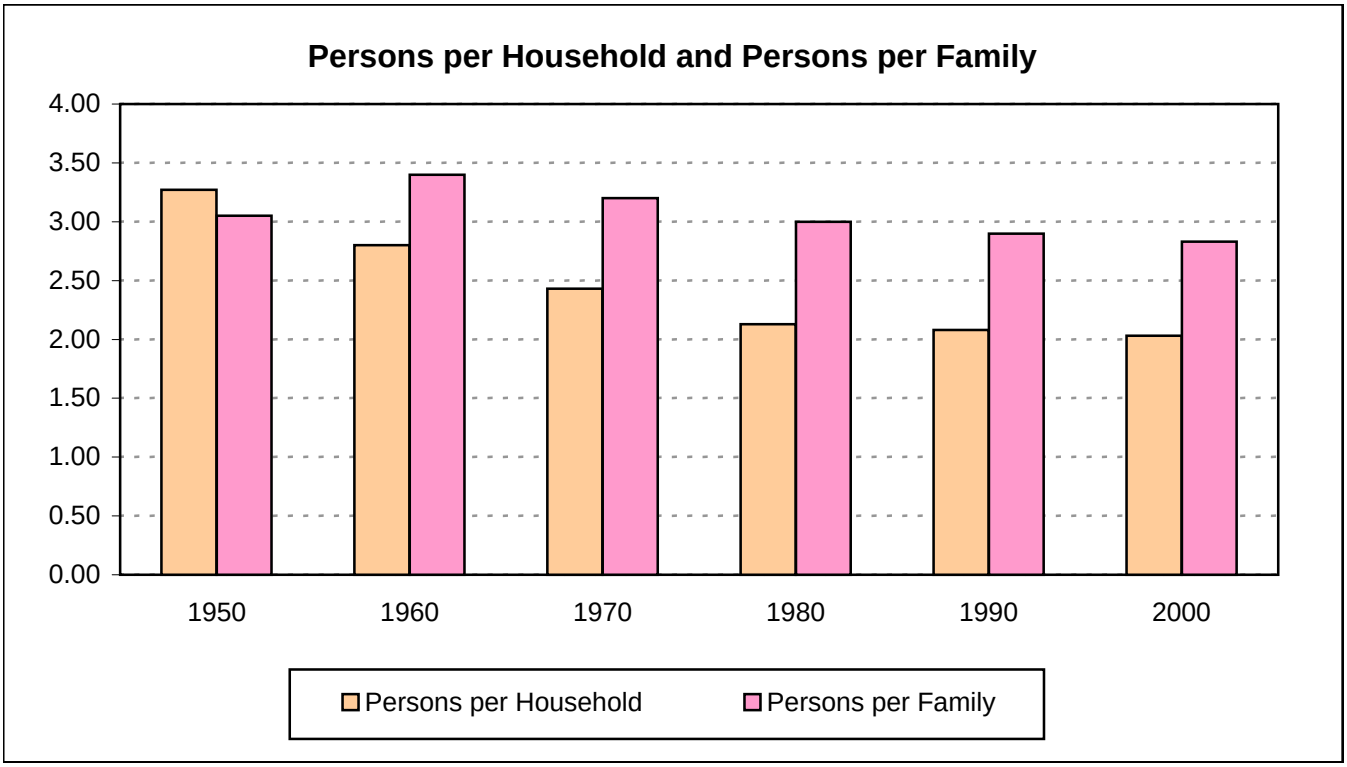
Household and Family Trends: 1950 - 2000

Year	All Households[1]	Persons per Household	Family Households[2]	Persons per Family	Children per Family[3]	% Family Households
1950	32,921	3.27	28,640	3.05	1.00	87.0%
1960	34,523	2.80	24,197	3.40	1.11	70.1%
1970	36,411	2.43	20,850	3.20	0.97	57.3%
1980	38,836	2.13	17,415	3.00	0.86	44.8%
1990	39,405	2.08	17,575	2.90	0.77	44.6%
2000	42,615	2.03	17,595	2.83	0.76	41.3%

1. *Households consist of persons who do not reside in group quarters, such as dormitories.*
2. *Families consist of households composed of more than one person whose members are related by birth, marriage or adoption.*
3. *Children include all persons under 18 in the population, including those in nonfamily living arrangements*



Household and Family Trends: 1950 - 2000



Sources: U. S. Census, Massachusetts General Characteristics, 1950; Massachusetts General Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Detailed Household and Family Trends: 1980 - 2000

All Households	1980	1990	2000
Total Households	38,836	39,405	42,615
Family Households	17,415	17,575	17,595
Nonfamily Households	21,421	21,830	25,020
Family Households			
Families w/ Own Minor Children	7,908	7,461	7,503
Couples	5,308	4,873	4,835
Single Parent Families	2,600	2,588	2,668
Families w/o Own Minor Children	9,507	10,114	10,092
Couples	6,855	7,304	7,573
All Other Families	2,652	2,810	2,519
Nonfamily Households			
Single Person Alone	16,329	16,686	17,649
Roommates	5,092	5,144	7,371
Roommates, Not Partners	--	3,465	4,686
Unmarried Partners	--	1,679	2,685
Opposite Sex	--	1,378	2,123
Same Sex[1]	--	301	562

All Households	1980	1990	2000
Total Households	100.0%	100.0%	100.0%
Family Households	44.8%	44.6%	41.3%
Nonfamily Households	55.2%	55.4%	58.7%
Family HHs. as % Total HHs.			
Families w/ Own Minor Children	20.4%	18.9%	17.6%
Couples	13.7%	12.4%	11.3%
Single Parent Families	6.7%	6.6%	6.3%
Families w/o Own Minor Children	24.5%	25.7%	23.7%
Couples	17.7%	18.5%	17.8%
All Other Families	6.8%	7.1%	5.9%
Nonfamily HHs. As % Total HHs.			
Single Person Alone	42.0%	42.3%	41.4%
Roommates, Not Partners	13.1%	13.1%	17.3%
Roommates, Not Partners	--	8.8%	11.0%
Unmarried Partners	--	4.3%	6.3%
Opposite Sex	--	3.5%	5.0%
Same Sex[1]	--	0.8%	1.3%

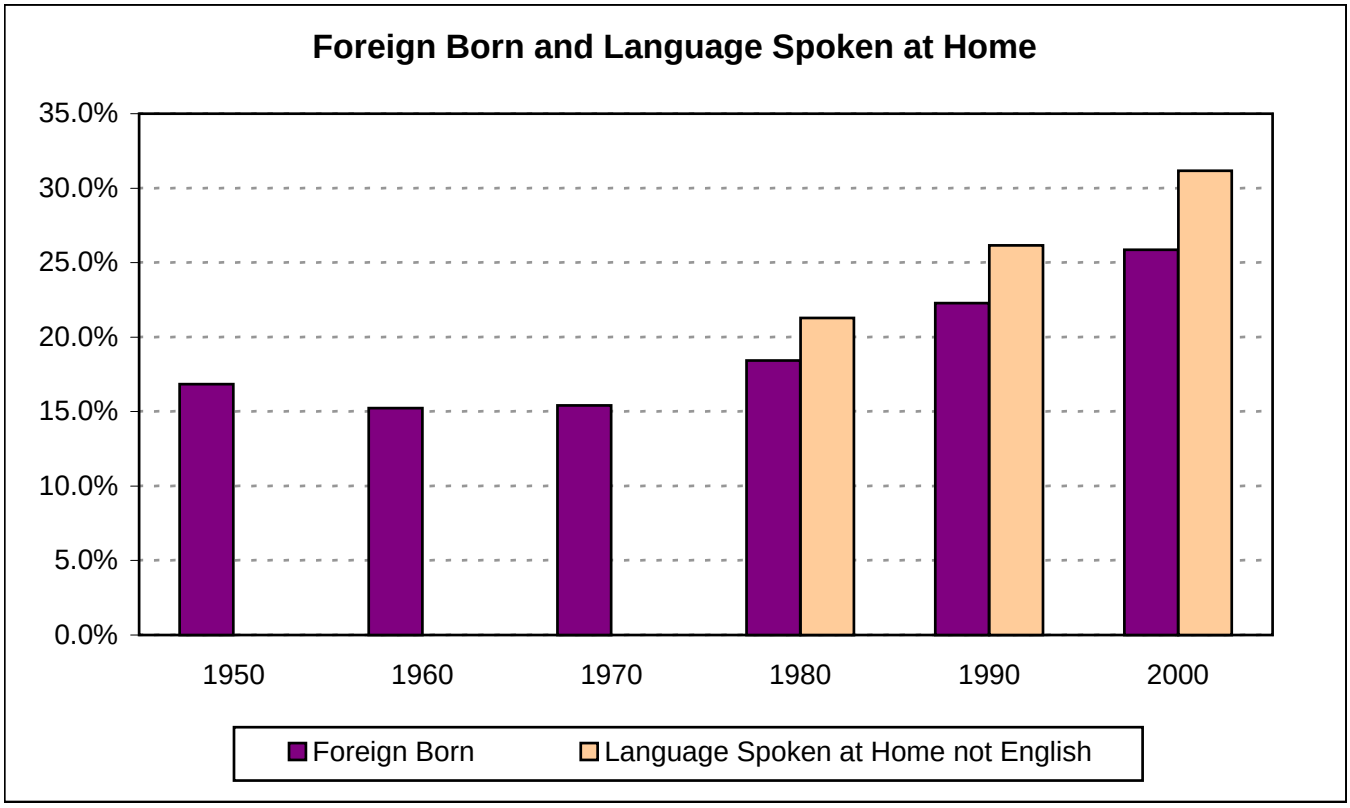
1. *For 1980 separate figures are unavailable for households with children where the householder is a relative of the child and where the householder is unrelated to the child.*
2. *While Same Sex Unmarried Partner data is available from the 1990 Census, the Census Bureau does not consider this information to be as reliable as 2000 data due to changes to the census questionnaire and data management policies.*

Sources: U. S. Census, Decennial Census, General Population Characteristics, Tables 19 and 29, 1980; General Population Characteristics, Table 64, 1990; American Factfinder website, 1990 STF1 Tables P016, P018, http://factfinder.census.gov; SF1 Profile, 2000; Summary File 1, 2000; Selected Characteristics from 1990 to Supplement Census 2000 SF1 - Unmarried Partner Households, http://ftp2.census.gov/census_1990/other/90partners.txt, 2001.

Foreign Born Persons and Persons Speaking Language Other Than English at Home: 1950 - 2000

	PERSONS 5 and OLDER		***FOREIGN BORN***		
Year	**Speak Language Other Than English at Home**	**Speak English at Home**	**Foreign Born[1]**	**Naturalized Citizens**	**Foreign Born As % Total Population**
1950[2]	--	NA	20,325	--	16.8%
1960	--	NA	16,411	--	15.2%
1970	--	NA	15,474	--	15.4%
1980	21.3%	78.7%	17,563	--	18.4%
1990	26.2%	73.8%	21,350	6,596	22.3%
2000	31.2%	68.8%	26,218	8,283	25.9%

1. *Foreign Born refers to those persons who were not United States citizes at the time of birth. This excludes those born in the United States, Puerto Rico, or U.S. island areas, as well as persons born in a foreign country who have at least one parent who was a United States citizen at the time of birth.*
2. *1950 figure for Foreign Born is for whites only. 1950 Native Born figure includes all native born whites and all non-whites, regardless of place of birth.*



Sources: U. S. Census, Massachusetts Detailed Characteristics, 1950; Massachusetts Social & Economic Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Income, Labor Force, and Employment

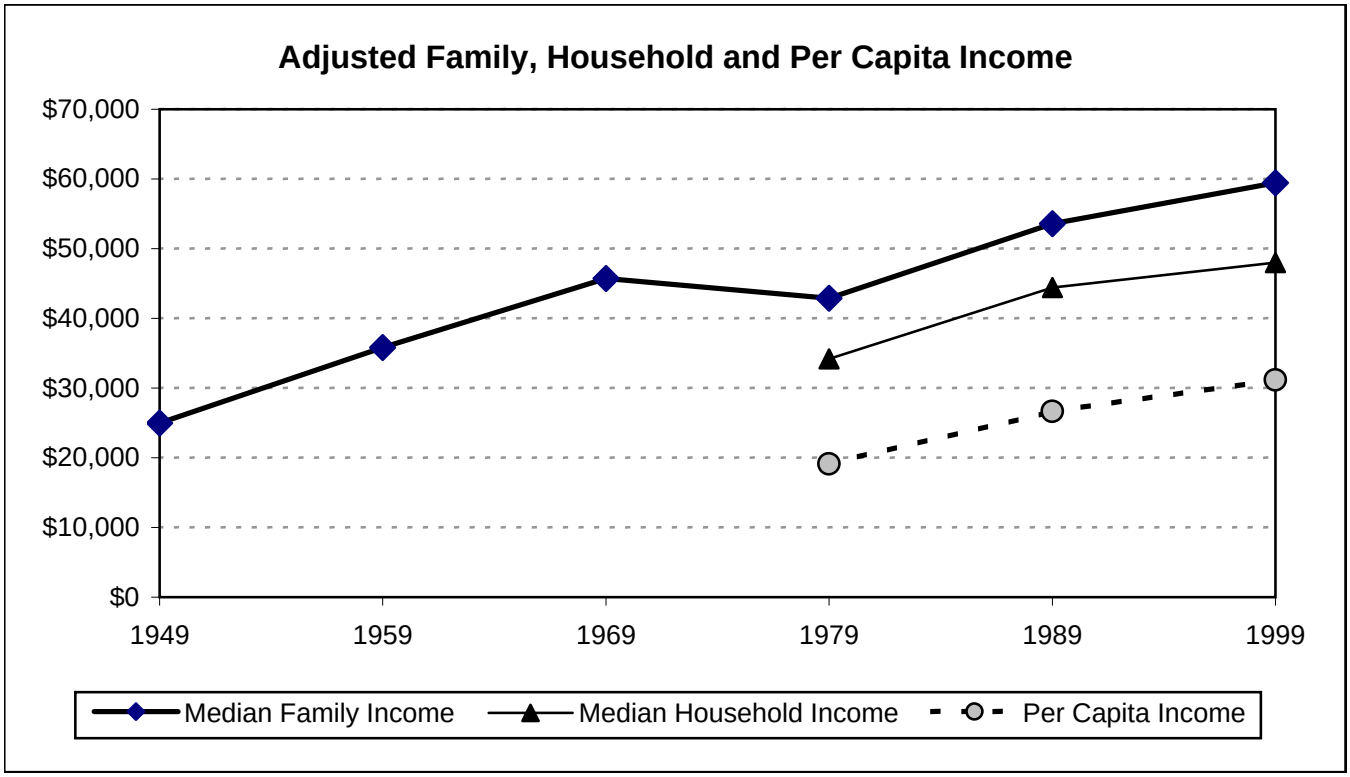
The charts on pages 116 to 124 examine the details of the population related to work and income. Income distribution has widened over the past twenty years; lower income ranges declined as an overall proportion of households while upper income groups increased. The Education and Professional Services sectors dominate the employment of Cambridge residents. Manufacturing, previously the dominant sector as recently as the early 1970s, now employs a little over 5% of residents. The City continues to have a lower unemployment rate than either the state or nation. Changes in the Cambridge labor force mirror changes in the educational level of adults 25 and older. By 2000 over 65% of the population had a bachelors or a higher level degree.

Among the workforce, Education and Professional Services also dominate, with substantial numbers also employed in Health Care and Food Service and Accommodations. The 25 largest employers in Cambridge include the universities, various levels of government, hospitals and several vibrant biotechnology companies.

Adjusted Family, Household and Per Capita Income: 1949 - 1999

	1949	1959	1969	1979	1989	1999
Median Family Income[1]	$24,961	$35,823	$45,699	$42,906	$53,604	$59,423
Median Household Income[1,2]	--	--	--	$34,169	$44,422	$47,979
Per Capita Income[1,3]	--	--	--	$19,132	$26,647	$31,156

1. *All figures are adjusted to the 1999 level using the change in Consumer Price Index for the Boston-Brockton-Nashua MA-NH-ME-CT Consolidated Metropolitan Statistical Area from 1949 to 1999.*
2. *Household Income was not calculated by the Census Bureau prior to the 1980 census.*
3. *Per capita income represents the average income of all residents, regardless of group quarters status.*



Sources: U. S. Census, Massachusetts Detailed Characteristics, 1950; Massachusetts Social & Economic Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

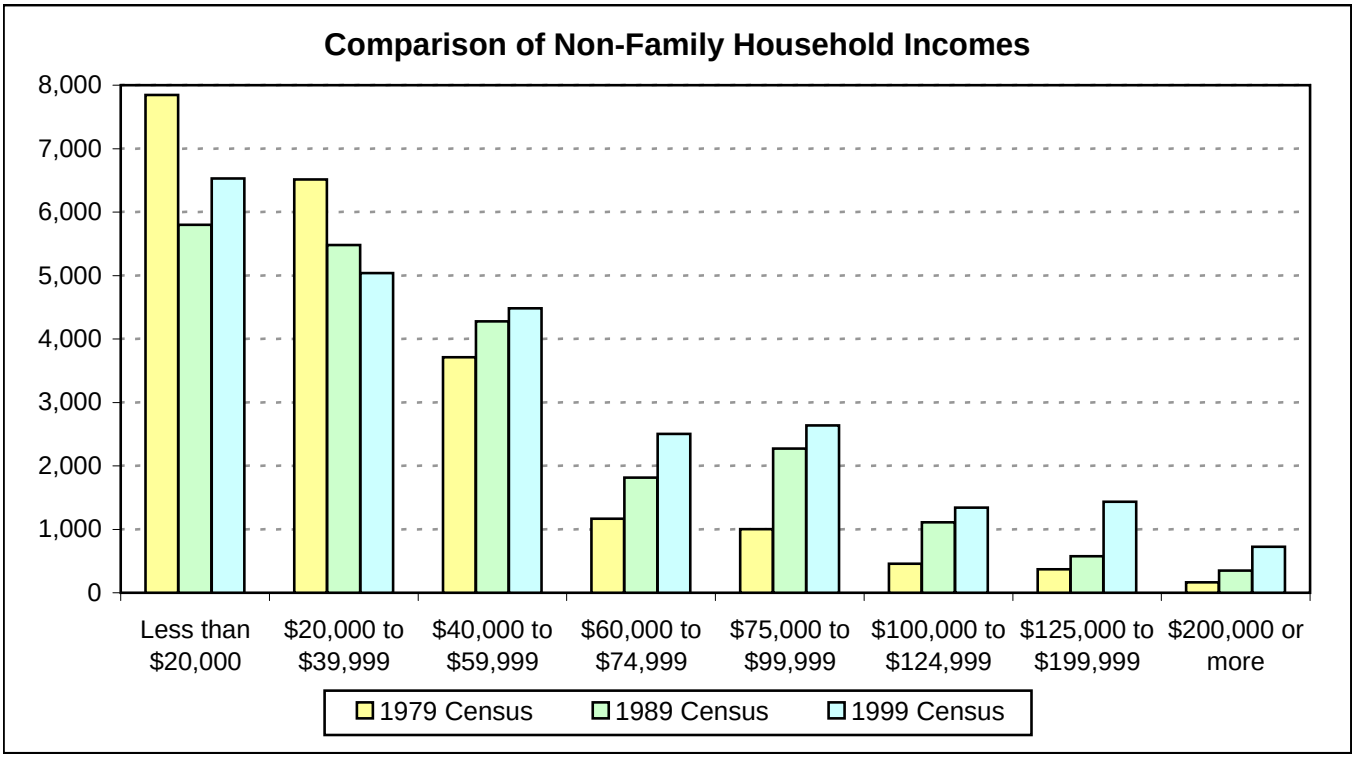
Distribution of Household Income: 1989 and 1999

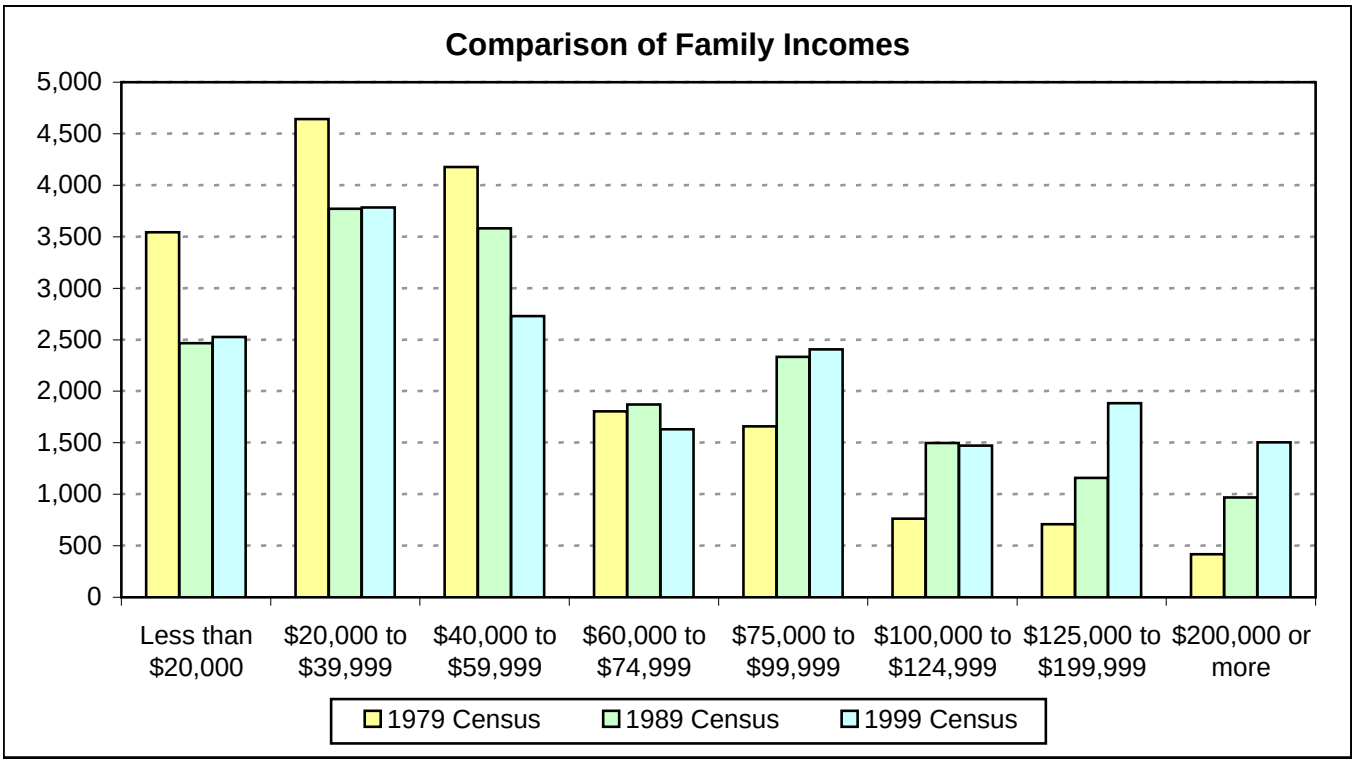
	NON-FAMILY HOUSEHOLDS			***FAMILY HOUSEHOLDS***		
Income Range	**1979[1]**	**1989[1]**	**1999**	**1979[1]**	**1989[1]**	**1999**
Less than $20,000	7,844	5,801	6,530	3,543	2,467	2,528
$20,000 to $39,999	6,516	5,481	5,041	4,642	3,770	3,783
$40,000 to $59,999	3,713	4,279	4,482	4,178	3,581	2,730
$60,000 to $74,999	1,166	1,817	2,504	1,806	1,870	1,630
$75,000 to $99,999	1,002	2,271	2,637	1,660	2,334	2,407
$100,000 to $124,999	460	1,113	1,342	762	1,498	1,473
$125,000 to $199,999	368	578	1,433	710	1,158	1,883
$200,000 or more	167	349	727	419	970	1,505

Income Range	**1979[1]**	**1989[1]**	**1999**	**1979[1]**	**1989[1]**	**1999**
Less than $20,000	36.9%	26.7%	26.4%	20.0%	14.0%	14.1%
$20,000 to $39,999	30.7%	25.3%	20.4%	26.2%	21.4%	21.1%
$40,000 to $59,999	17.5%	19.7%	18.1%	23.6%	20.3%	15.2%
$60,000 to $74,999	5.5%	8.4%	10.1%	10.2%	10.6%	9.1%
$75,000 to $99,999	4.7%	10.5%	10.7%	9.4%	13.2%	13.4%
$100,000 to $124,999	2.2%	5.1%	5.4%	4.3%	8.5%	8.2%
$125,000 to $199,999	1.7%	2.7%	5.8%	4.0%	6.6%	10.5%
$200,000 or more	0.8%	1.6%	2.9%	2.4%	5.5%	8.4%

1. *All population figures are adjusted to 1999 income ranges using the change in Consumer Price Index for the Boston-Brockton-Nashua MA-NH-ME-CT Consolidated Metropolitan Statistical Area.*

Distribution of Household Income: 1989 and 1999





Sources: U. S. Census, Decennial Census, STF3A tape file, 1980; STF3A tape file, 1990; Summary File 3, 2000.

Resident Labor Force: 1950 - 2000

Category	1950	1960	1970	1980	1990	2000
Potential Workers[1]	97,268	85,787	82,454	82,461	83,720	89,303
Residents in Labor Force[2]	50,522	48,126	49,092	52,070	57,151	59,965
Labor Force Participation Rate[2]	51.9%	56.1%	59.5%	63.1%	68.3%	68.3%
Ratio Workers to Non-Workers	1:1.4	1:1.2	1:1.0	1:0.8	1:0.7	1:0.7
Potential Women Workers[3]	48,983	43,694	42,496	42,921	43,387	46,125
Women in Labor Force	19,187	19,950	22,632	25,492	28,453	29,691
% Women in Labor Force	39.2%	45.7%	53.3%	59.4%	65.6%	64.4%
Women as % of Total Labor Force	38.0%	41.5%	46.1%	49.0%	49.8%	49.5%
Unemployed Residents	2,984	690	1,959	2,332	2,941	3,668
Civilian Labor Force Unemployment Rate[4]	5.9%	1.4%	4.0%	4.5%	5.2%	6.1%
Potential Workers Not in Labor Force	46,746	37,661	33,362	30,391	26,569	29,338
Residents 16 to 19 Enrolled in School, Not in Labor Force	--	--	--	3,992	3,248	3,262
Residents Enrolled in College[5]	13,545	14,318	18,972	23,403	24,364	26,613
Residents over 65	11,151	12,617	11,700	10,924	9,941	9,282
Noninstitutionalized Residents Unable to Work due to a Disability[6]	3,894	--	1,834	1,951	1,994	2,236
Institutionalized Residents	633	959	1,032	1,061	1,118	505

1. *For 1950 and 1960 all figures in this table are based on residents 14 and older, unless otherwise stated. 1970 through 2000 figures are based on residents 16 or older, unless otherwise stated.*
2. *The Labor Force is composed of all persons, except as noted in footnote 1, who work or are currently seeking work. The Labor Force Participation Rate is the fraction of Potential Workers who belong to the Labor Force.*
3. *For 1950 and 1960 all figures are based on all female residents 14 and older, unless otherwise stated. 1970 through 2000 figures are based on all female residents 16 or older, unless otherwise stated.*
4. *The unemployment rate stated here is calculated by comparing the number of unemployed persons detected by the U. S. Census to the civilian labor force, which in the case of Cambridge is slightly smaller than the total labor force. The civilian labor force does not include residents who actively serve as members of the armed forces. Note that the unemployment rate used here differs significantly from the rate devised by the U. S. Department of Labor and the Massachusetts Division of Employment & Training (MA DET), both in how the number is calculated and the result. For example, according to the MA DET, the citywide rate at the time of the 2000 U. S. Census was 1.3%, at the time of 1990 U. S. Census the rate was 3.4%, and in 1980 the annual average was 5.1%.*
5. *For 1950 the figure reported is Persons Not in Labor Force for reasons "Other and Not Reported." The majority of these persons are assumed to be college students.*
6. *For 2000 includes persons with an employment disability who are unemployed.*

Sources: U. S. Census, Massachusetts Detailed Characteristics , 1950; Massachusetts Social & Economic Population Characteristics , 1960; Characteristics of the Population , Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

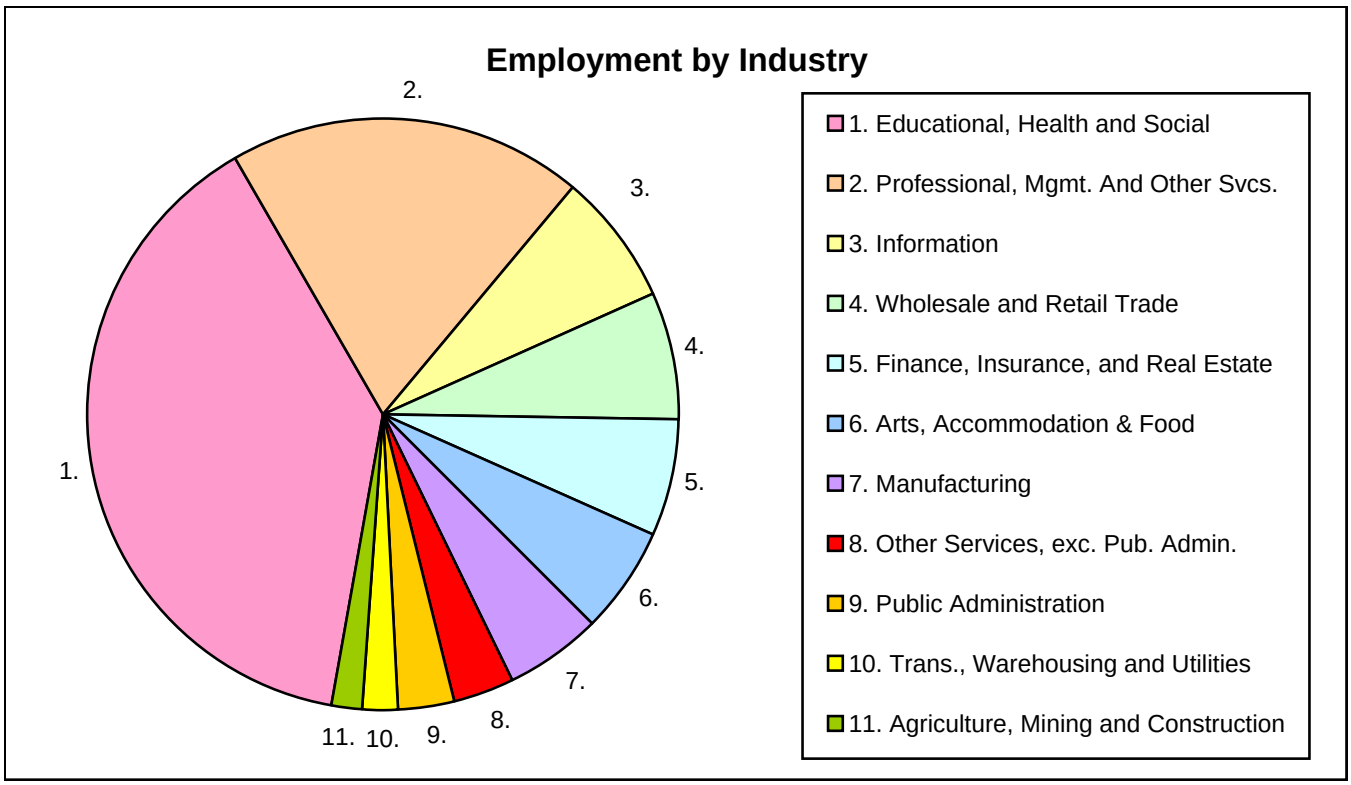
Resident Employment by Industry and Occupation: 2000

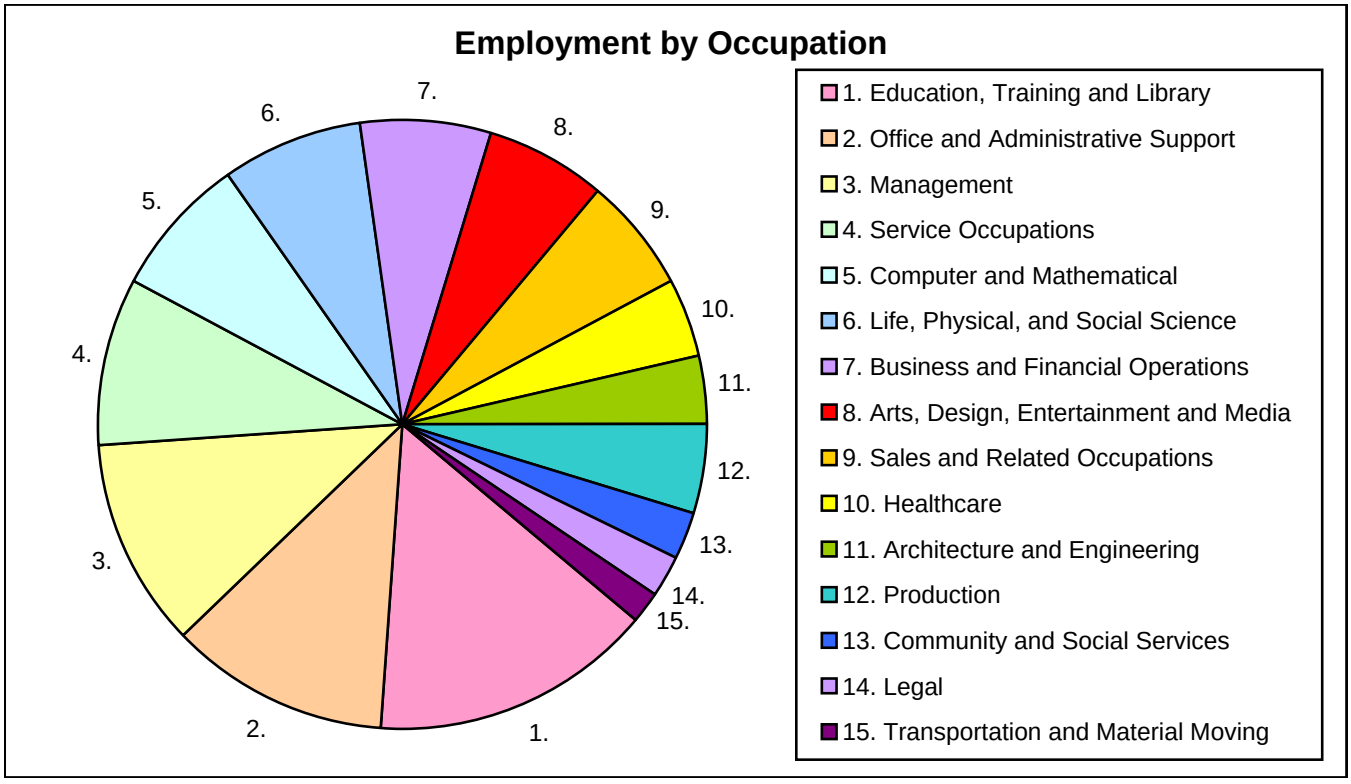
Employment by Sector[1]	Jobs	As % 2000 Total
Educational, Health and Social Services	21,907	39.0%
Professional, Scientific, Management, Administrative and Waste Management Services	10,861	19.3%
Information	4,038	7.2%
Wholesale and Retail Trade	4,033	7.2%
Finance, Insurance, and Real Estate	3,510	6.2%
Arts, Entertainment, Accommodation and Food Service	3,327	5.9%
Manufacturing	2,879	5.1%
Other Services, except Public Administration	1,975	3.5%
Public Administration	1,631	2.9%
Transportation, Warehousing and Utilities	1,088	1.9%
Agriculture, Mining and Construction	992	1.8%
Total	**56,241**	**100.0%**

Employment by Occupation[1]	Jobs	As % 2000 Total
Education, Training and Library[2]	8,425	15.0%
Office and Administrative Support	6,509	11.6%
Management	6,276	11.2%
Service Occupations	5,011	8.9%
Computer and Mathematical[2]	4,262	7.6%
Life, Physical, and Social Science[2]	4,231	7.5%
Business and Financial Operations	3,850	6.8%
Arts, Design, Entertainment and Media[2]	3,581	6.4%
Sales and Related Occupations	3,516	6.3%
Healthcare Practitioners and Technicians[2]	2,311	4.1%
Architecture and Engineering[2]	2,096	3.7%
Production, Construction and Agriculture	2,619	4.7%
Community and Social Services[2]	1,318	2.3%
Legal[2]	1,231	2.2%
Transportation and Material Moving	1,005	1.8%
Total	**56,241**	**100.0%**

1. *These figures are based upon the North American Industrial Classification Code (NAICS), which replaced the Standard Industrial Classification Code (SIC) system used by the U. S. Census Bureau prior to the 2000 census. As a result comparisons cannot be drawn between the figures cited here and figures based upon the SIC classification system, including all Census figures available prior to 2000.*
2. *Professional occupations category.*

Resident Employment by Industry and Occupation: 2000



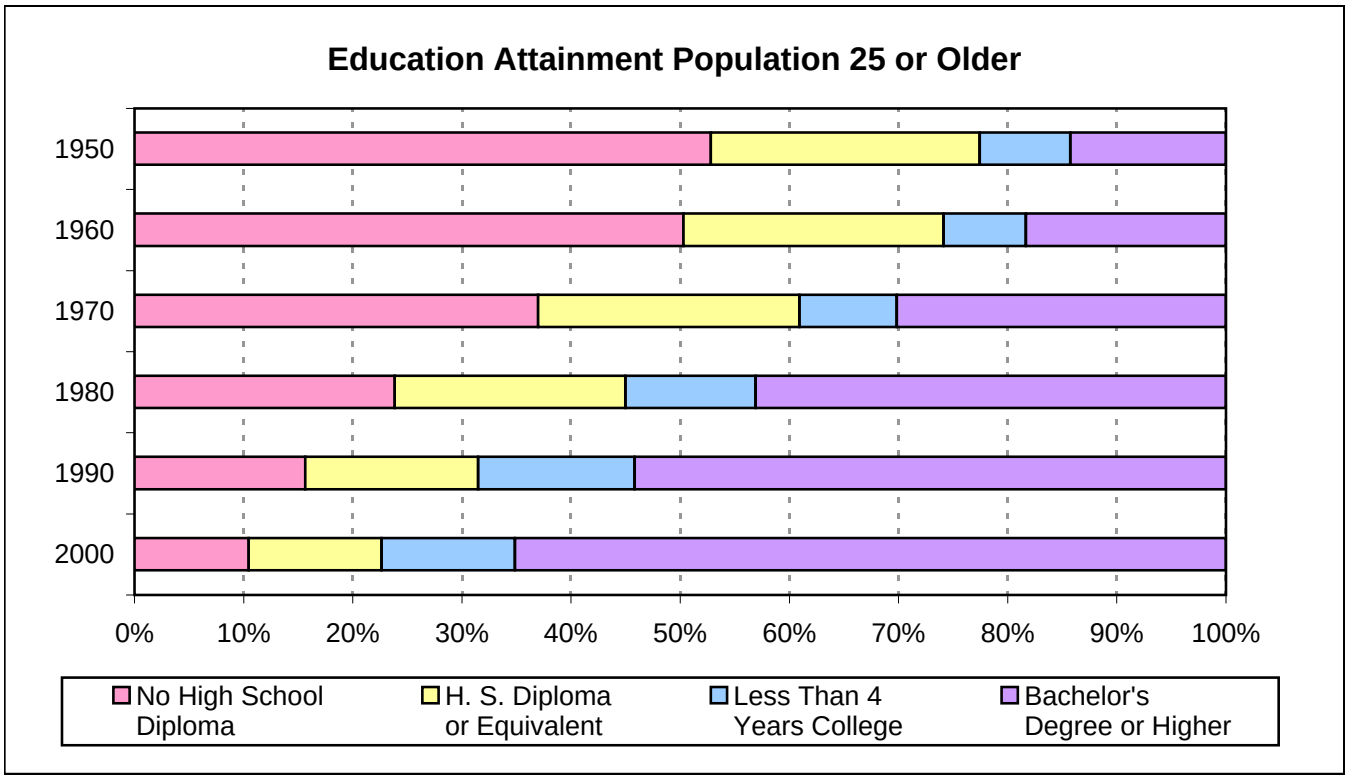


Source: U. S. Census Bureau, 2000 Decennial Census, Summary File 3.

Highest Educational Attainment of Population 25 or Older: 1950 - 2000

Year	No High School Diploma	H. S. Diploma or Equivalent	Less Than 4 Years College[1]	Bachelor's Degree or Higher
1950[2,3]	52.8%	24.6%	8.3%	14.2%
1960[2]	50.3%	23.8%	7.6%	18.3%
1970	37.0%	24.0%	8.9%	30.2%
1980	23.8%	21.2%	11.9%	43.1%
1990	15.6%	15.8%	14.3%	54.2%
2000	10.5%	12.2%	12.2%	65.1%

1. *Includes both persons with an Associate degree and persons with a partially completed Bachelor degree.*
2. *Assumes persons reported as having completed four years of high school have a high school diploma and persons reporting four or more years of post secondary education have a Bachelor degree.*
3. *1950 figures based on persons reporting education level. 2,060 persons did not report an education level.*



Sources: U. S. Census, Massachusetts Detailed Characteristics, 1950; Massachusetts Social & Economic Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Cambridge Resident Employment by Industry Sector: 2005

Sector[1]	Employment	As % Total
Construction	**2,516**	**2.5%**
Manufacturing	**3,654**	**3.6%**
Pharmaceutical and Medicine Manufacturing	1,882	1.8%
Wholesale Trade	**3,027**	**3.0%**
Commercial Goods Merchant Wholesalers	2,015	2.0%
Retail Trade	**6,932**	**6.8%**
Grocery Stores	1,518	1.5%
Clothing and Clothing Accessories Stores	1,490	1.5%
Transportation and Warehousing	**1,201**	**1.2%**
Information	**5,206**	**5.1%**
Software Publishers	2,008	2.0%
ISPs, Search Portals, and Data Processing	1,189	1.2%
Finance and Insurance	**1,912**	**1.9%**
Real Estate and Rental and Leasing	**818**	**0.8%**
Professional and Technical Services	**20,701**	**20.2%**
Architectural and Engineering Services	2,736	2.7%
Computer Systems Design and Related Services	3,014	2.9%
Management and Technical Consulting Services	2,383	2.3%
Scientific Research and Development services	11,208	11.0%
Management of Companies and Enterprises	**1,622**	**1.6%**
Administrative and Waste Services	**2,626**	**2.6%**
Administrative and Support Services	2,611	2.6%
Educational Services	**27,873**	**27.3%**
Elementary and Secondary Schools	2,604	2.5%
Colleges and Universities	24,685	24.1%
Health Care and Social Assistance	**10,173**	**9.9%**
Ambulatory Health Care Services	2,279	2.2%
Hospitals	4,010	3.9%
Social Assistance	2,959	2.9%
Arts, Entertainment, and Recreation	**671**	**0.7%**
Accommodation and Food Services	**8,371**	**8.2%**
Traveler Accommodation	1,978	1.9%
Full-Service Restaurants	3,705	3.6%
Limited-Service Eating Places	1,542	1.5%
Other Services	**2,263**	**2.2%**
Public Administration	**2,639**	**2.6%**
Total[2]	**102,272**	**100.0%**

1. *These figures are based upon the North American Industrial Classification Code (NAICS), which replaced the Standard Industrial Classification Code (SIC) system used by the Massachusetts Dept. of Employment and Training (DET) prior to 2001. As a result, comparisons cannot be drawn between the figures cited here and figures based upon the SIC classification system, including all DET local figures available prior to 2001. For more information on the NAICS system see http://www.census.gov/epcd/www/naics.html.*
2. *Figures in bold sum to 102,205 due to data suppression.*

Source: Massachusetts Department of Workforce Development, ES-202 data series, http://lmi2.detma.org/lmi/lmi_es_a.asp, 2006.

Top 25 Employers: 2006

2006 Rank	NAME OF EMPLOYER	EMPLOYEES[1]	BUSINESS	2005 Rank
1	**Harvard University**	10,068	Higher Education	1
2	**Massachusetts Institute of Technology**	7,864	Higher Education	2
3	**City of Cambridge[2]**	2,819	Government	3
4	**Mt. Auburn Hospital**	1,813	Medical	7
5	**Cambridge Health Alliance**	1,567	Medical	4
6	**Federal Government**	1,510	Government	6
7	**Biogen Idec**	1,434	Biotechnology	5
8	**Genzyme Corporation**	1,370	Biotechnology	9
9	**Novartis Institute For Biomedical Research**	1,200	Biotechnology	11
10	**Millenium Pharmaceuticals**	1,175	Biotechnology	8
11	**Draper Laboratory**	1,061	Research & Development	10
12	**Commonwealth Of Massachusetts**	933	Government	14
13	**Vertex Pharmaceuticals**	836	Biotechnology	19
14	**Wyeth Cambridge**	704	Biotechnology	12
15	**EF International**	685	Travel & Exchange Programs	13
16	**Camp, Dresser & Mckee**	682	Engineering Consultants	16
17	**Whole Foods**	593	Retail Supermarket	17
18	**Quest Diagnostics**	570	Clinical Testing Services	15
19	**Lesley College**	551	Higher Education	18
20	**Shire Pharmaceuticals/TKT[3]**	475	Biotechnology	NA
21	**Youville Hospital & Rehabilitation Center**	463	Medical	25
22	**Monitor Group**	455	Management Consulting	22
23	**Forrester Research[3]**	444	Business Services	NA
24	**Akamai[3]**	417	Internet Network Services	NA
25	**Abt Associates**	411	Medical	24
25	**BBN Technologies[3]**	411	Research & Development	NA

1. *All figures collected between 7/06 and 10/06, unless otherwise noted. All figures reflect employment within the City of Cambridge only. Whenever possible, totals are based on Full Time Equivalents (FTEs). Part time workers were counted as 0.5 FTEs, unless otherwise indicated by employer response.*
2. *City of Cambridge figures include School Department employees.*
3. *Not on 2005 Top 25 list. All these companies were among the Top 25 Employers at various times in the past.*
4. *Employers deleted since 2004: Grace Construction, Whitehead Institute, and Shaw's Supermarkets/Star Markets.*

Source: Cambridge Community Development Department and cited employers, 2006.

Commuting and Journey to Work

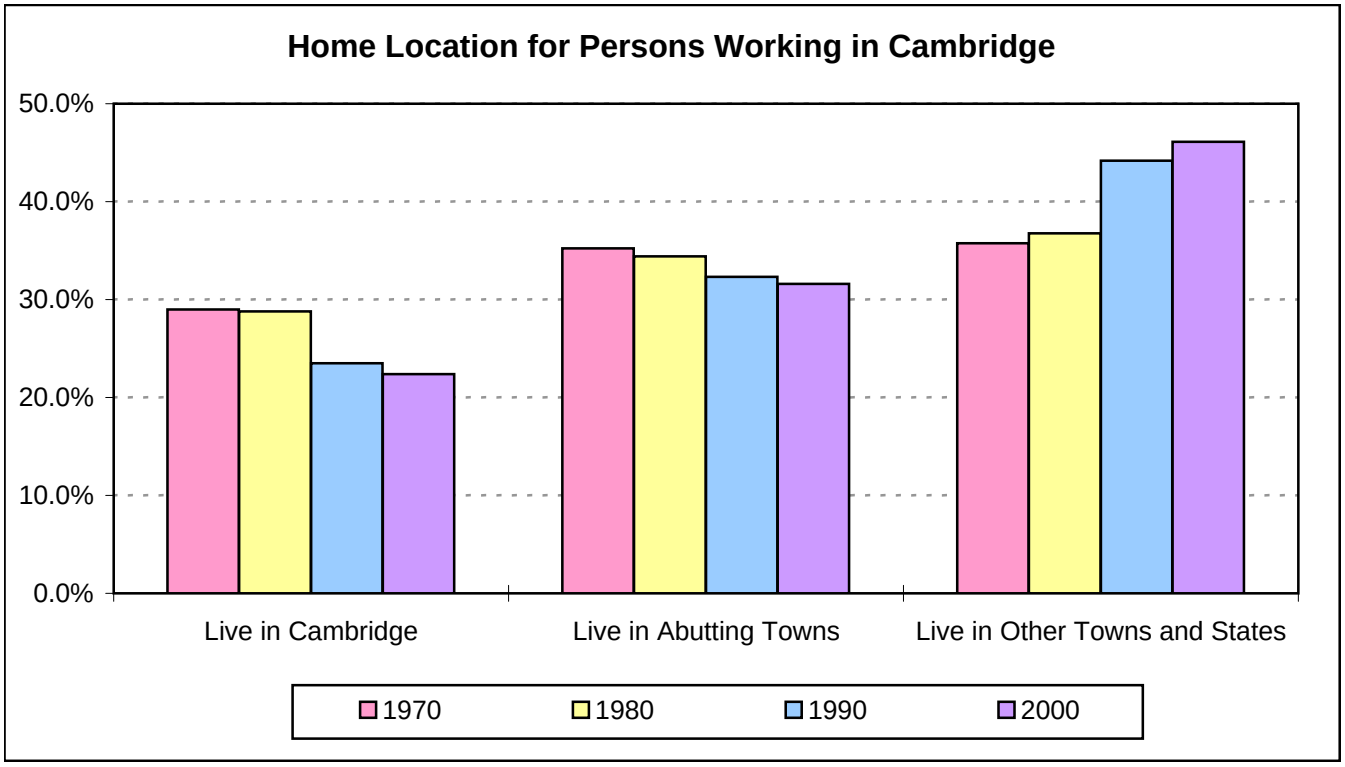
Over 100,000 people work in Cambridge. 22% live in Cambridge, 32% live in abutting communities and the rest commute from more distant cities and towns. Among those who live in abutting communities fewer than half drive to work alone. The remainder use public transit, walk, bike or rideshare. Driving to work alone remains the primary means of commuting for those who live in more distant locations. During the 1990s Cambridge saw a small drop in the proportion of all workers who drive to work alone, one of the few communities to experience this trend.

About half of the Cambridge residents who are employed work in the City. One fourth of employed residents are able to use public transit for their commute while another fourth walks to work. When all modes are taken into account, barely more than a third of the population drives to work alone. As with the Cambridge work-force, the proportion of commuters using single occupancy vehicles declined during the 1990s.

Where People Who Work in Cambridge Reside: 1970 - 2000

	1970	1980	1990	2000
Total Live in Cambridge and Abutting Towns	64.2%	63.2%	55.8%	52.0%
Live in Cambridge	29.0%	28.8%	23.5%	22.4%
Live in Abutting Towns[1]	35.2%	34.4%	32.3%	31.6%
Live in Other Towns and States	35.8%	36.8%	44.2%	46.1%
All Persons Reporting Place of Work in Cambridge[2]	**76,112**	**88,594**	**109,490**	**114,133**

1. *Abutting towns include Arlington, Belmont, Boston, Brookline, Somerville, and Watertown.*
2. *This figure consists of all persons reporting a workplace in Cambridge, regardless of place of residence. These figures are reported by the U. S. Census, and they do not match either the labor force figures generated by the Census Bureau or the annual employment figures generated by the MA DET.*

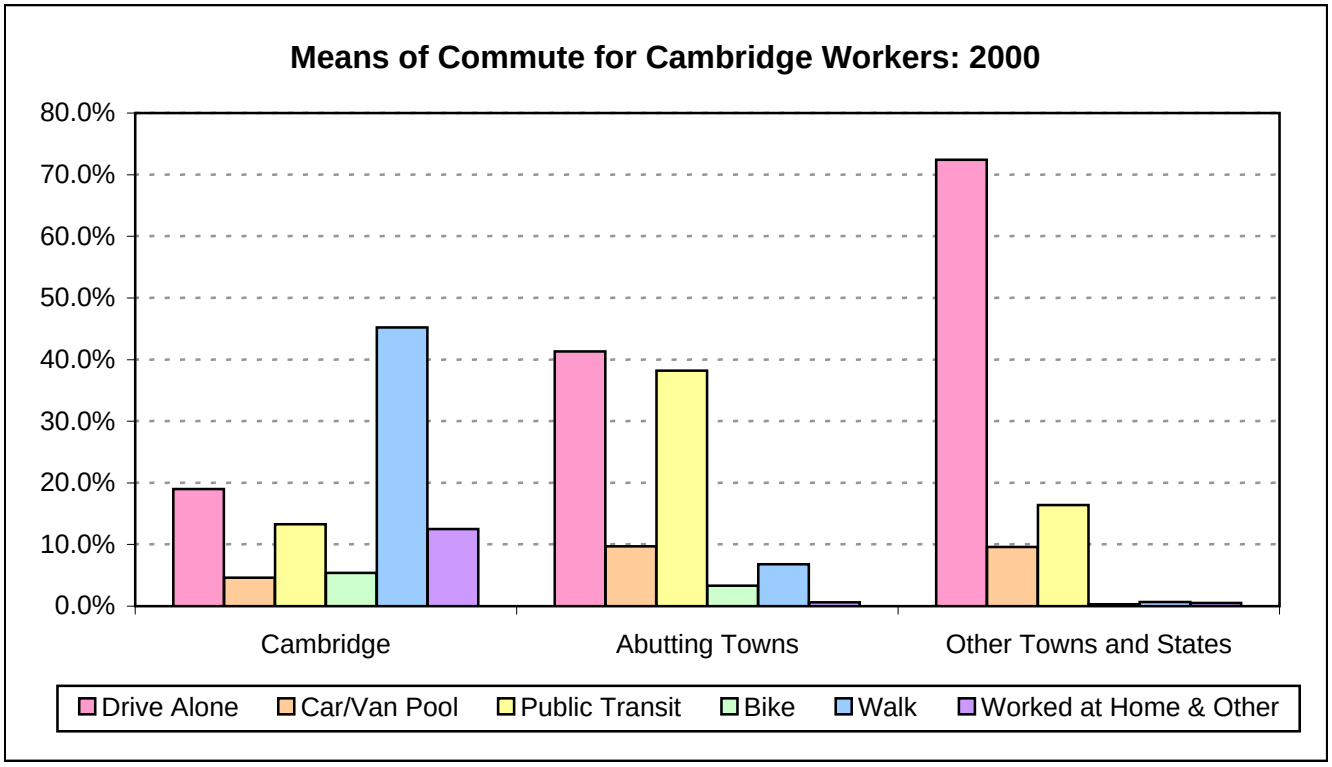


Sources: U. S. Census, Journey to Work Subject Report, 1970. U. S. Census, UAC Data Report, 1970; U. S. Census, Urban Transportation Planning Package for Massachusetts, Pt. VI, 1980; U. S. Census, Statewide Element of Census Transportation Planning Package, 1990. U. S. Census, 2000 Census Transportation Planning Package 2000 Part 3, 2004.

Cambridge Workers Means of Commute to Work: 1990 - 2000

Means of Commute	*2000 Cambridge Workers* Reside in Cambridge	Reside in Abutting Towns[1]	Reside in Other Towns and States	Total 2000 Workers	Total 1990 Workers
Drive Alone	19.0%	41.3%	72.4%	50.6%	51.2%
Car/Van Pool	4.6%	9.7%	9.6%	8.5%	10.6%
Public Transit	13.3%	38.2%	16.4%	22.7%	20.8%
Bike	5.4%	3.3%	0.3%	2.4%	2.0%
Walk	45.2%	6.8%	0.7%	12.6%	12.2%
Worked At Home	11.4%	0.0%	0.0%	2.5%	1.7%
Other	1.1%	0.6%	0.5%	0.7%	0.6%
Total	**100.0%**	**99.9%**	**99.9%**	**100.0%**	**99.1%**

1. Abutting towns include Arlington, Belmont, Boston, Brookline, Somerville, and Watertown.

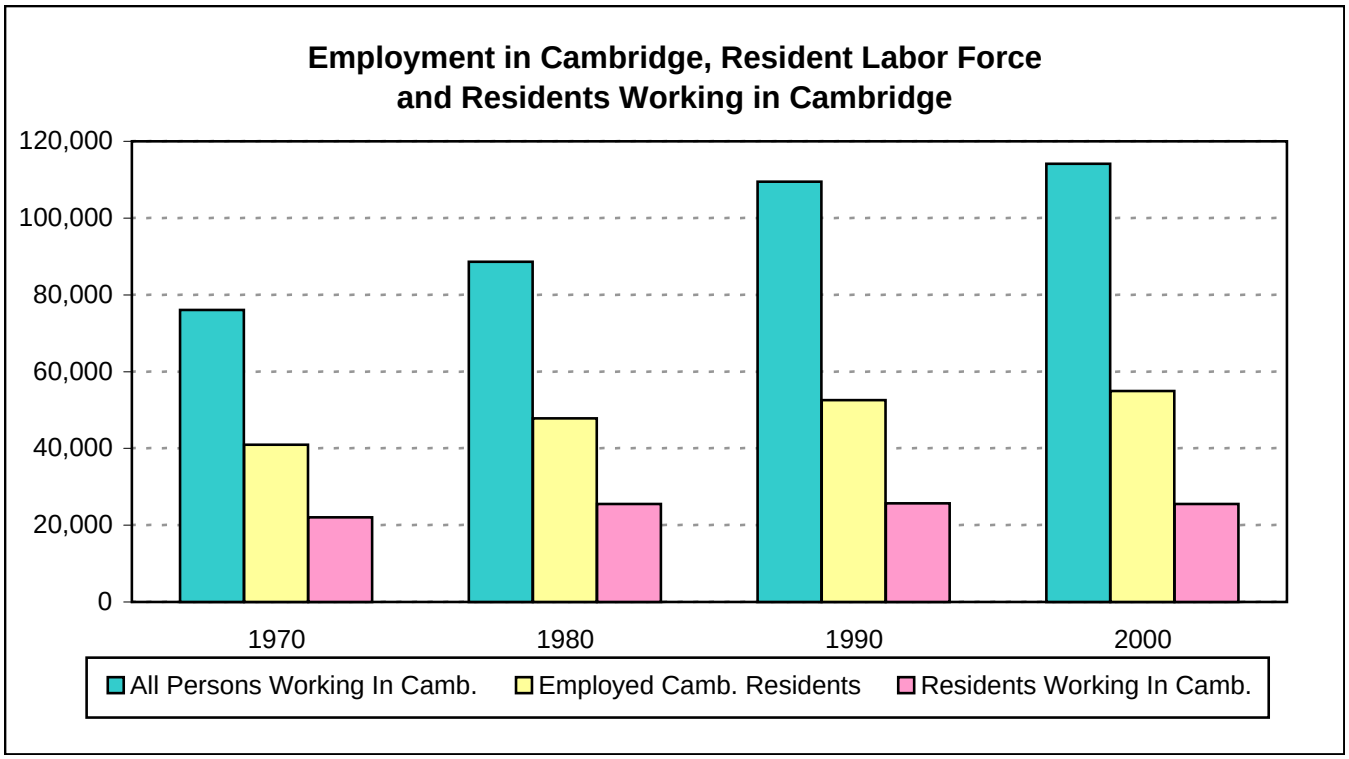


Source: Massachusetts Central Transportation Planning Staff and U. S. Census, Journey to Work data file, 1990; U. S. Census, 2000 Census Transportation Planning Package 2000 Part 3, 2004 as analyzed by the Cambridge Community Development Department, 2005.

Where Cambridge Residents Work: 1970 - 2000

	1970[1]	1980[2]	1990[3]	2000[3,4]
Cambridge Residents Employed in Cambridge	22,074	25,512	25,730	25,554
As % of Employed Residents	53.9%	53.4%	48.9%	46.5%
As % of All Persons Wkg. In Cambridge	29.0%	28.8%	23.5%	22.4%
Camb. Residents Working Elsewhere	18,910	22,306	26,858	29,405
As % of Employed Residents	46.1%	46.6%	51.1%	53.5%
Cambridge Residents Reporting Place of Work	**40,984**	**47,818**	**52,588**	**54,959**
All Persons Reporting Place of Work in Cambridge[5]	76,112	88,594	109,490	114,133

1. *Figures for workers 16 and older. Figures reported elsewhere may include workers 14 and older. Employed persons not reporting place of work not included in table. 4,873 employed Cambridge residents did not report a place of work.*
2. *Figures for workers 16 and older. Reflects Cambridge residents employed only in New England states. Nonreporters allocated by Census Bureau Journey to Work branch rather than by 1980 Census operations.*
3. *Figures for workers 16 and older. Allocation of nonreporters by Census Bureau as part of 1990 and 2000 Census data processing.*
4. *Data from 2000 Summary File 3 data file for Massachusetts.*
5. *This figure consists of all persons reporting a workplace in Cambridge, regardless of place of residence. These figures are reported by the U. S. Census, and they do not match either the labor force figures generated by the Census Bureau or the annual employment figures generated by the MA DET.*

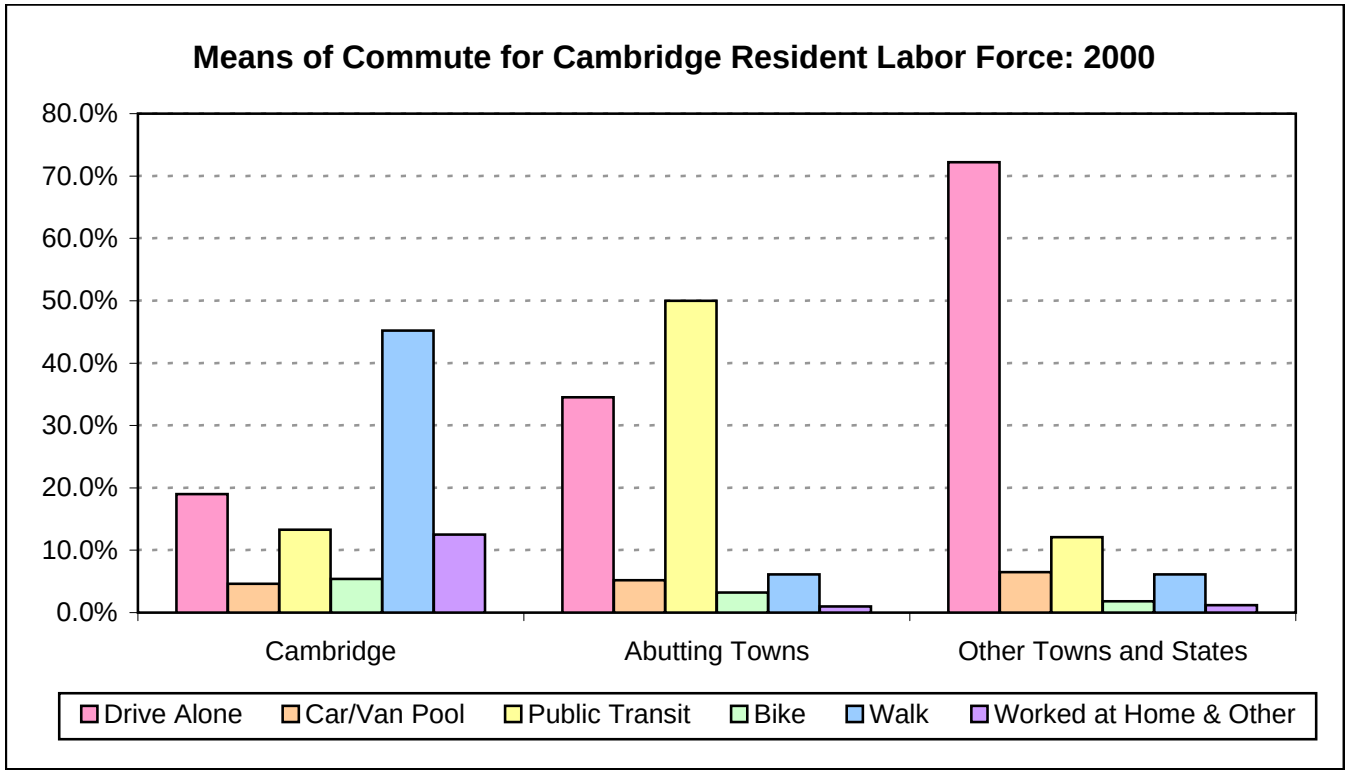


Sources: U. S. Census, Journey to Work Subject Report, 1970; U. S. Census, Urban Transportation Planning Package for Massachusetts, Pt. VI, 1980; U. S. Census, Statewide Element of Census Transportation Planning Package, 1990; U. S. Census Bureau, Decennial Census, Summary File 3, 2000; Census

Cambridge Residents Means of Commute to Work: 1990 - 2000

Means of Commute	2000 CAMBRIDGE RESIDENT LABOR FORCE: Work in Cambridge	Work in Abutting Towns[1]	Work in Other Towns and States	Total 2000 Resident Labor Force	Total 1990 Resident Labor Force
Drive Alone	19.0%	34.5%	72.2%	35.3%	37.7%
Car/Van Pool	4.6%	5.2%	6.5%	5.2%	7.5%
Public Transit	13.3%	50.0%	12.1%	24.9%	23.4%
Bike	5.4%	3.2%	1.8%	3.9%	2.9%
Walk	45.2%	6.1%	6.1%	24.3%	24.2%
Worked At Home	11.4%	0.0%	0.0%	5.3%	3.4%
Other	1.1%	1.0%	1.2%	1.1%	0.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

1. Abutting towns include Arlington, Belmont, Boston, Brookline, Somerville, and Watertown.



Source: Massachusetts Central Transportation Planning Staff and U. S. Census, Journey to Work data file, 1990; U. S. Census, 2000 Census Transportation Planning Package 2000 Part 3, 2004 as analyzed by the Cambridge Community Development Department, 2005.

Land Use, Zoning, and Commercial Development

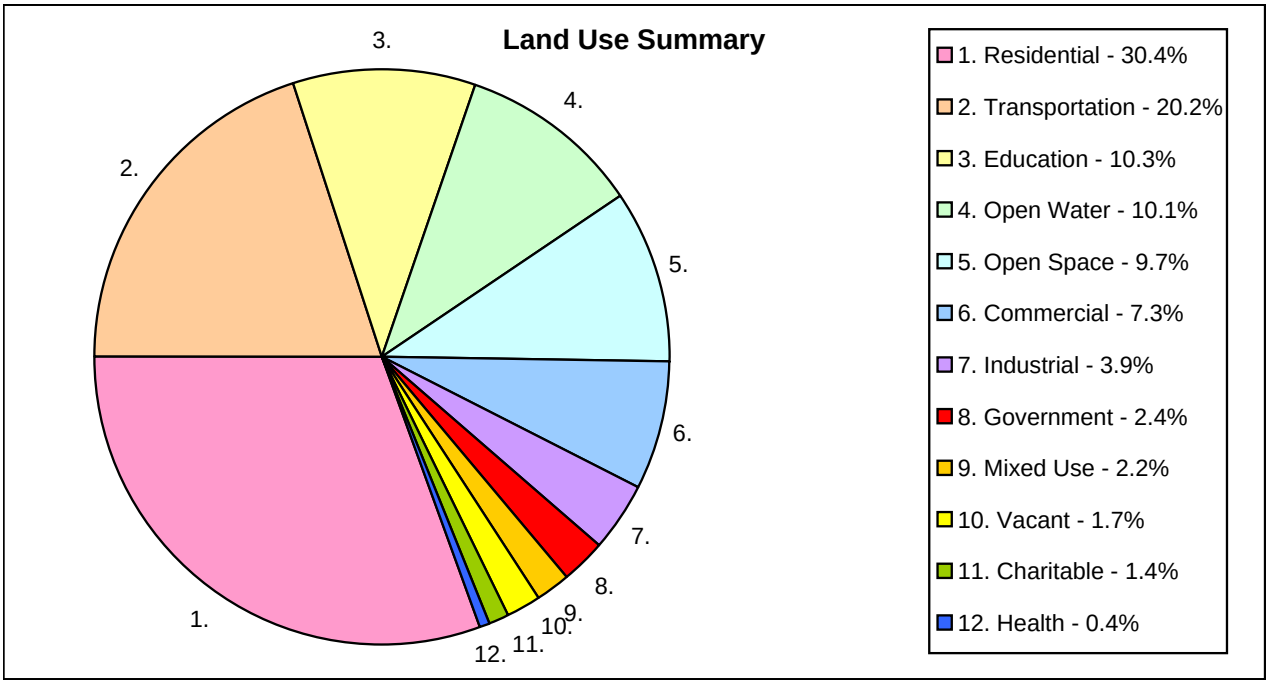
The land area of Cambridge comprises a little over six square miles. No single land use predominates. Residential uses comprise about 30% of the City's area and transportation uses such as streets and rail lines comprise another 20%. One fourth of the City's land area is occupied by tax exempt activities, with the bulk of this land owned by higher educational institutions and various levels of government.

Over 30 million square feet of commercial development is found in Cambridge. Large concentrations exist in and around the East Cambridge waterfront, Kendall Square, Cambridgeport and, in the west, the Alewife area. The majority of commercial development has occurred since 1980, with two larger waves, one in the late 1980s and another in the early years of the current decade. The economic contraction at the beginning of the current decade led to a large increase in the commercial vacancy rate. However, the commercial vacancy rate has declined by more than half since reaching its peak in 2003; it currently rests at 9.1% in the third quarter of 2006.

Land Use Summary: 2004

Land Use Category	Acres	Acres As % of City	Taxable Parcels	Nontaxable Parcels
Residential[1]	1,388	30.4%	10,644	111
Transportation[2]	921	20.2%	106	64
Education[4]	470	10.3%	--	323
Open Water[3]	461	10.1%	--	--
Protected Open Space[5]	442	9.7%	--	118
Commercial	333	7.3%	650	--
Industrial	179	3.9%	175	--
Government[6]	109	2.4%	--	77
Mixed Use[7]	100	2.2%	336	--
Vacant	77	1.7%	233	9
Charitable[8]	63	1.4%	--	126
Health[9]	20	0.4%	9	5
Total	**4,562**	**100.0%**	**12,153**	**833**

1. *Residential properties includes private residential, housing authority developments, and rectories.*
2. *Transportation uses include MBTA properties, street right-of-ways, and some parking lots and parking structures. Most street right-of-ways are not included in parcels.*
3. *Educational uses include properties owned by colleges, as well as all public and private school grounds.*
4. *Open water figure includes only Fresh Pond and Charles River. These areas are not included in parcels.*
5. *Open Space uses include city recreation land, DCR properties and the federal Longfellow House Historic Site. Charles River and Fresh Pond surface areas within parks are included in the Open Water category. Certain public open spaces are not included in parcels.*
6. *Government uses include city, federal, state, and county offices, cemeteries and other minor uses. Public open space is included elsewhere. Public school properties are grouped with Educational uses.*
7. *Mixed Uses includes parcels with mixed residential and commercial/industrial uses.*
8. *Charitable uses include privately owned nontaxable parcels that are not Residential, Education or Health uses.*
9. *Health uses include hospitals, health centers and medical office buildings.*

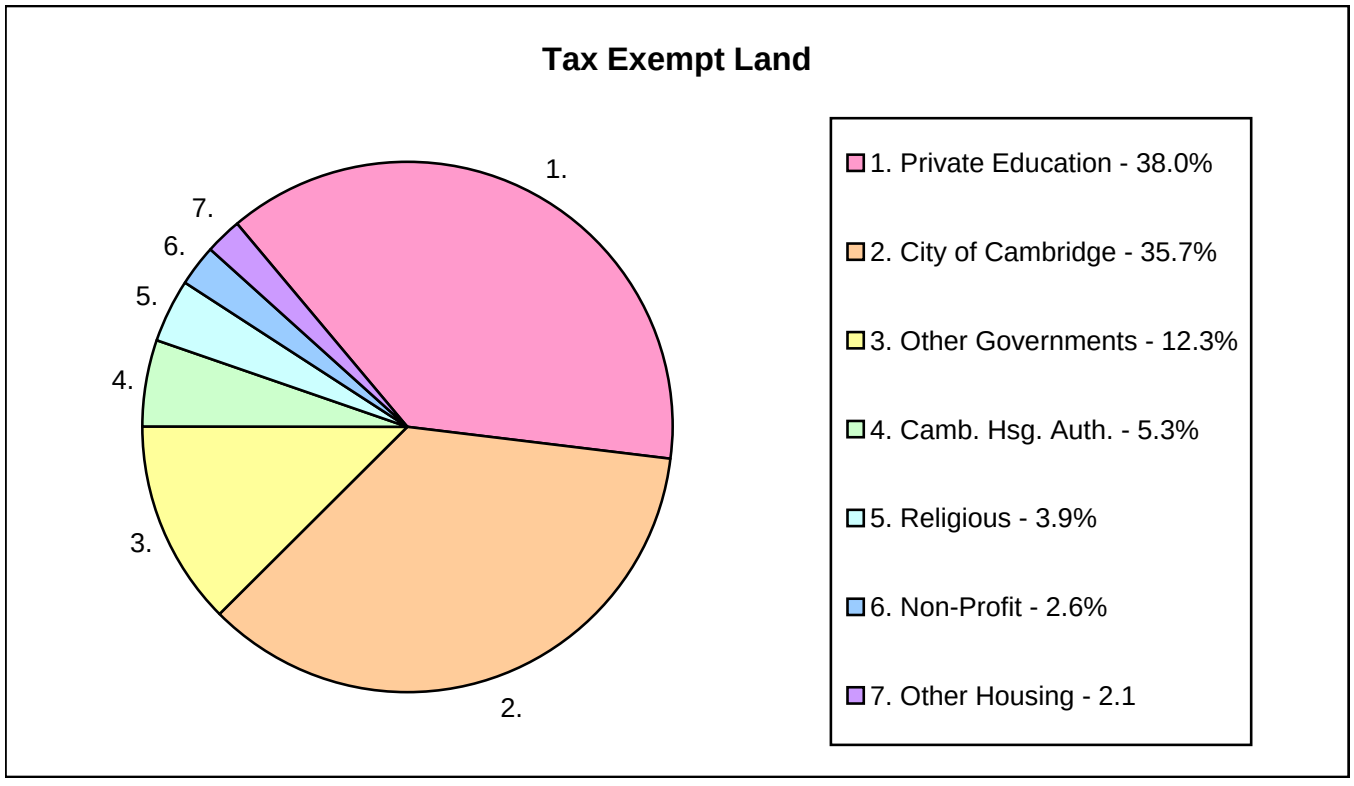


Sources: Cambridge Community Development Department, 2006; Cambridge Geographic Information System, 2006; Cambridge Assessing Department, 2006.

Tax Exempt Land Ownership: 2004

Property Owner	Acres	As % of Exempt Area	As % of City Area	Parcels
Private Education[1]	434	38.0%	9.5%	304
City of Cambridge[2]	407	35.7%	8.9%	195
Other Governments[3]	140	12.3%	3.1%	87
Cambridge Hsg. Authority[4]	61	5.3%	1.3%	40
Religious[5]	45	3.9%	1.0%	129
Other Non-Profit[6]	30	2.6%	0.7%	52
Other Housing Groups[7]	24	2.1%	0.5%	26
Total Non-Taxable	**1,141**	**100.0%**	**25.0%**	**833**

1. *Private Education includes colleges as well as private and parochial schools.*
2. *City of Cambridge includes municipal property, public schools and Cambridge Redevelopment Authority property.*
3. *Other Governments includes federal, state and county property.*
4. *Includes all properties owned by the Cambridge Housing Authority.*
5. *Religious includes churches, synagogues, rectories and cemeteries owned by religious denominations.*
6. *Non-Profit includes all other owners of non-taxable property in the City of Cambridge. This category does not include privately-owned publicly-assisted housing subject to 121A tax agreements.*
7. *Includes all nontaxable housing other than that owned by the Cambridge Housing Authority, such as many group homes. Please note that most privately-owned publicly-assisted housing is not tax exempt.*

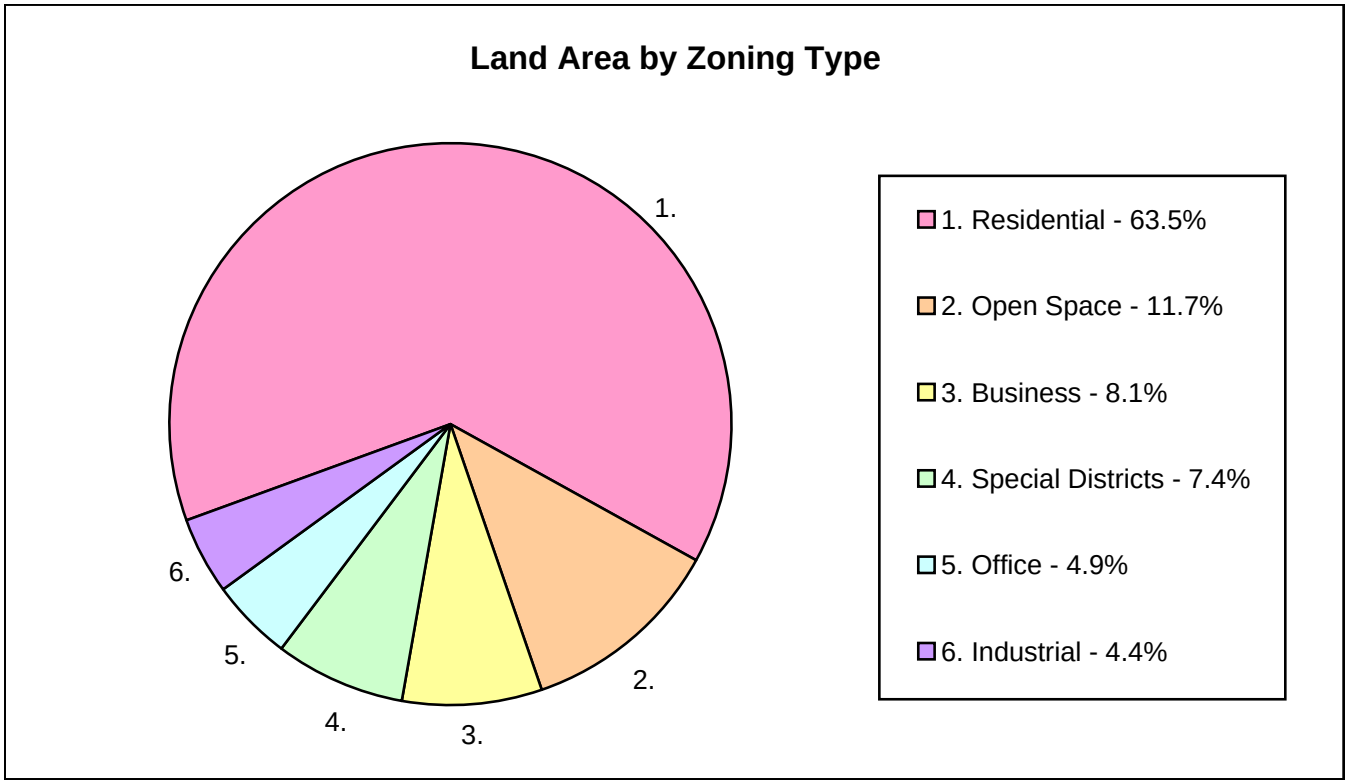


Sources: Cambridge Community Development Department, 2006; Cambridge Assessing Department, 2006.

Zoning District Areas: 2006

Zoning District Type[1]	Acres[2]	Acres as % of City
Zoned Residential	2,367	63.5%
Zoned Open Space	1,094	11.7%
Zoned Business	358	8.1%
Special Zoning Districts[3]	336	7.4%
Zoned Office	205	4.9%
Zoned Industrial[4]	203	4.4%
Total	**4,563**	**100.0%**

1. *These terms refer to zoning district designations; the zoning district in which a parcel is located and the the current use may differ.*
2. *Reflects zoning as amended through Ordinance # 1297 of June 26, 2006.*
3. *Special Districts include the MXD, CRDD and SD zoning districts.*
4. *Housing is allowed in all industrial districts.*

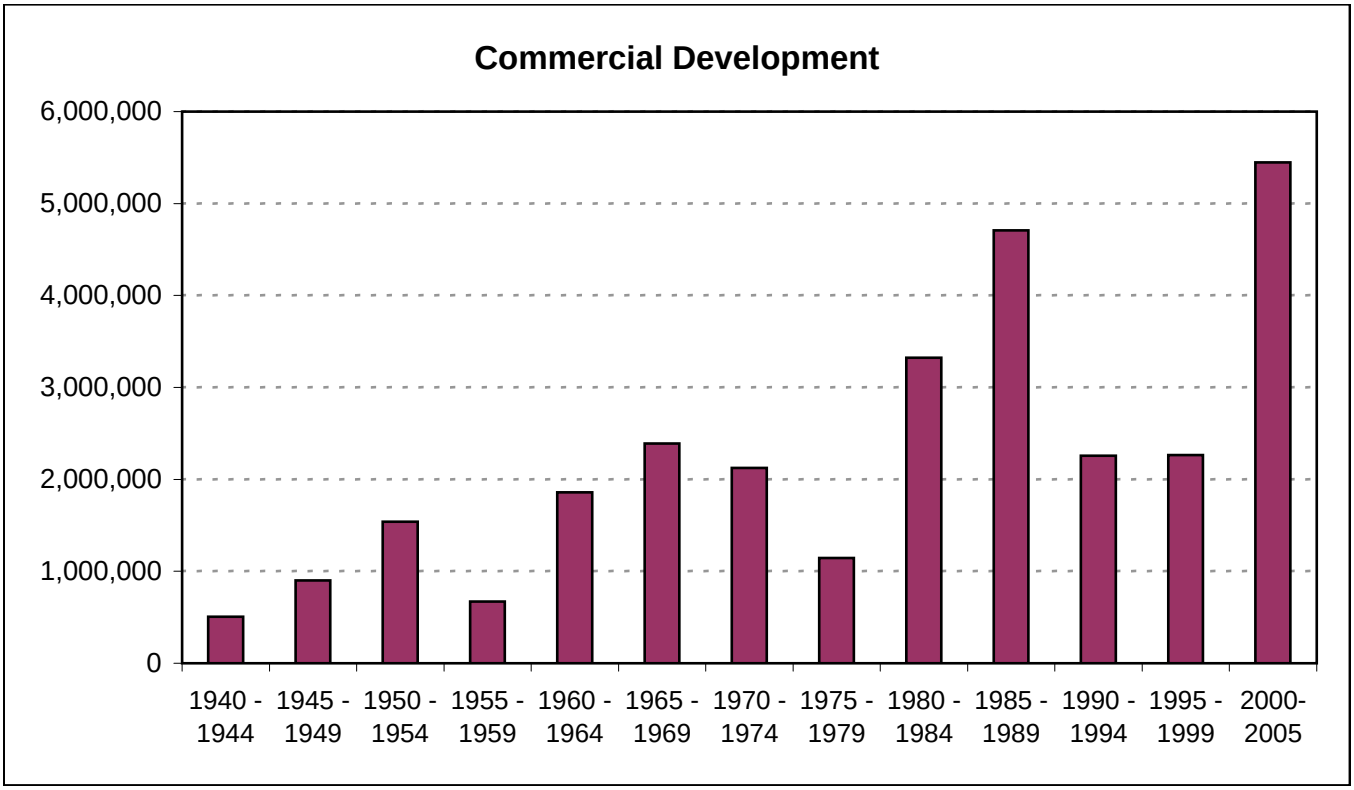


Sources: Cambridge Community Development Department, 2006; Cambridge Geographic Information System, 2006.

Commercial Development: 1940 - 2005

Years Completed	Development Completed in Square Feet[1]
1940 - 1944	504,863
1945 - 1949	901,379
1950 - 1954	1,539,873
1955 - 1959	671,542
1960 - 1964	1,859,523
1965 - 1969	2,390,465
1970 - 1974	2,123,165
1975 - 1979	1,146,448
1980 - 1984	3,321,730
1985 - 1989	4,708,318
1990 - 1994	2,257,548
1995 - 1999	2,265,521
2000 - 2005	5,446,909
Total	29,137,284

1. Figures include only non-residential taxable construction. Figures for 1940 through 2000 from Assessing Department. 2001 through 2005 data from records maintained by Community Development Department.

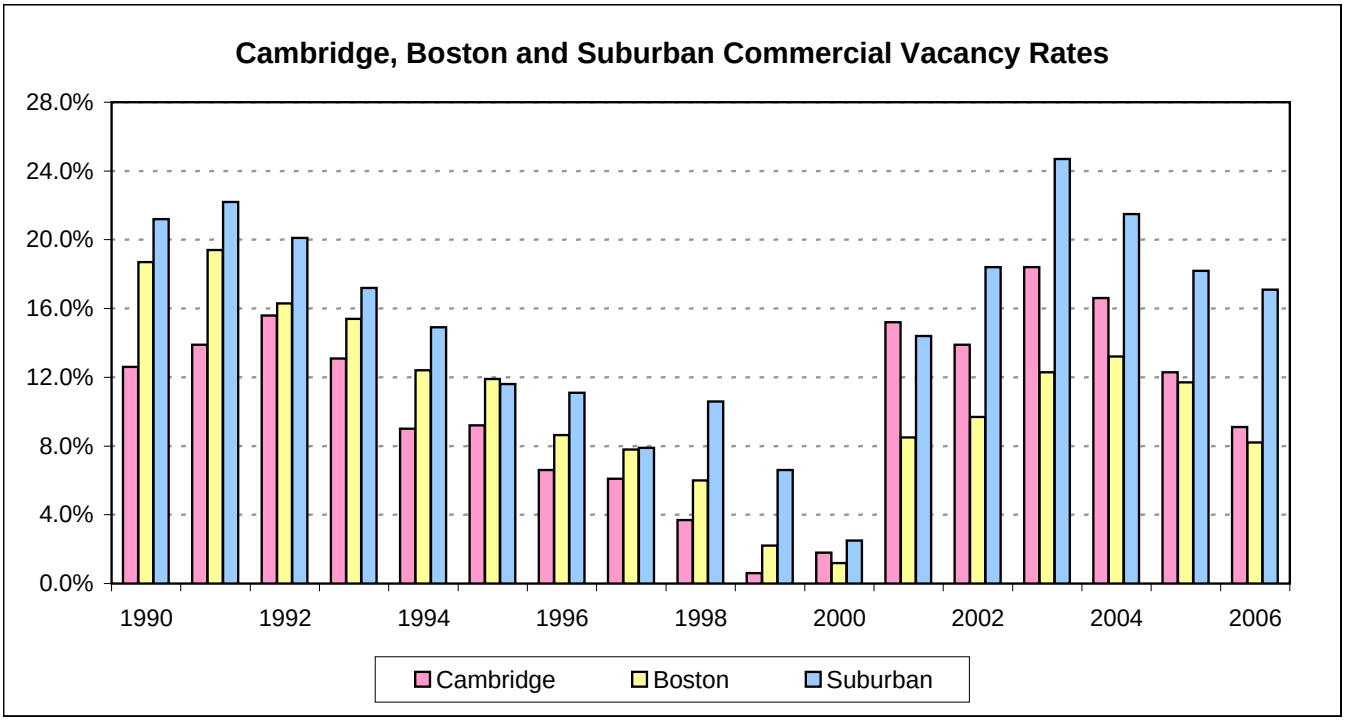


Sources: Cambridge Community Development Dept., 2006; Cambridge Assessing Department, 2006.

Cambridge, Boston and Suburban
Commercial Real Estate Vacancy Rate: 1990 - 2005

	Cambridge[1]	Boston[1]	Suburbs[1]
1990 Year End	12.6%	18.7%	21.2%
1991 Year End	13.9%	19.4%	22.2%
1992 Year End	15.6%	16.3%	20.1%
1993 Year End	13.1%	15.4%	17.2%
1994 Year End	9.0%	12.4%	14.9%
1995 Year End	9.2%	11.9%	11.6%
1996 Year End	6.6%	8.6%	11.1%
1997 Year End	6.1%	7.8%	7.9%
1998 Year End	3.7%	6.0%	10.6%
1999 Year End	0.6%	2.2%	6.6%
2000 Year End	1.8%	1.2%	2.5%
2001 Year End	15.2%	8.5%	14.4%
2002 Year End	13.9%	9.7%	18.4%
2003 Year End	18.4%	12.3%	24.7%
2004 Year End	16.6%	13.2%	21.5%
2005 Year End	12.3%	11.7%	18.2%
2006 3rd Quarter	9.1%	8.2%	17.1%

1. *These rates are for office and R&D space only; industrial and retail space are not included. The vacancy rates do not include space currently occupied but available for lease, nor does it include any sublease space. The vacancy rate does not include space available in the future, such as space now under construction.*



Source: CB Richard Ellis / Whittier Partners, LP, 2006.

Housing

The housing stock of the City of Cambridge includes over 44,000 individual units located in a wide variety of building types, from single family homes to large multi-unit rental and condominium buildings. Over 26% of units are found in buildings of more than 50 units. On the other hand, smaller multifamily buildings with 2 or 3 units comprise over 50% of the residential building stock. Approximately one third of the housing stock is owner-occupied.

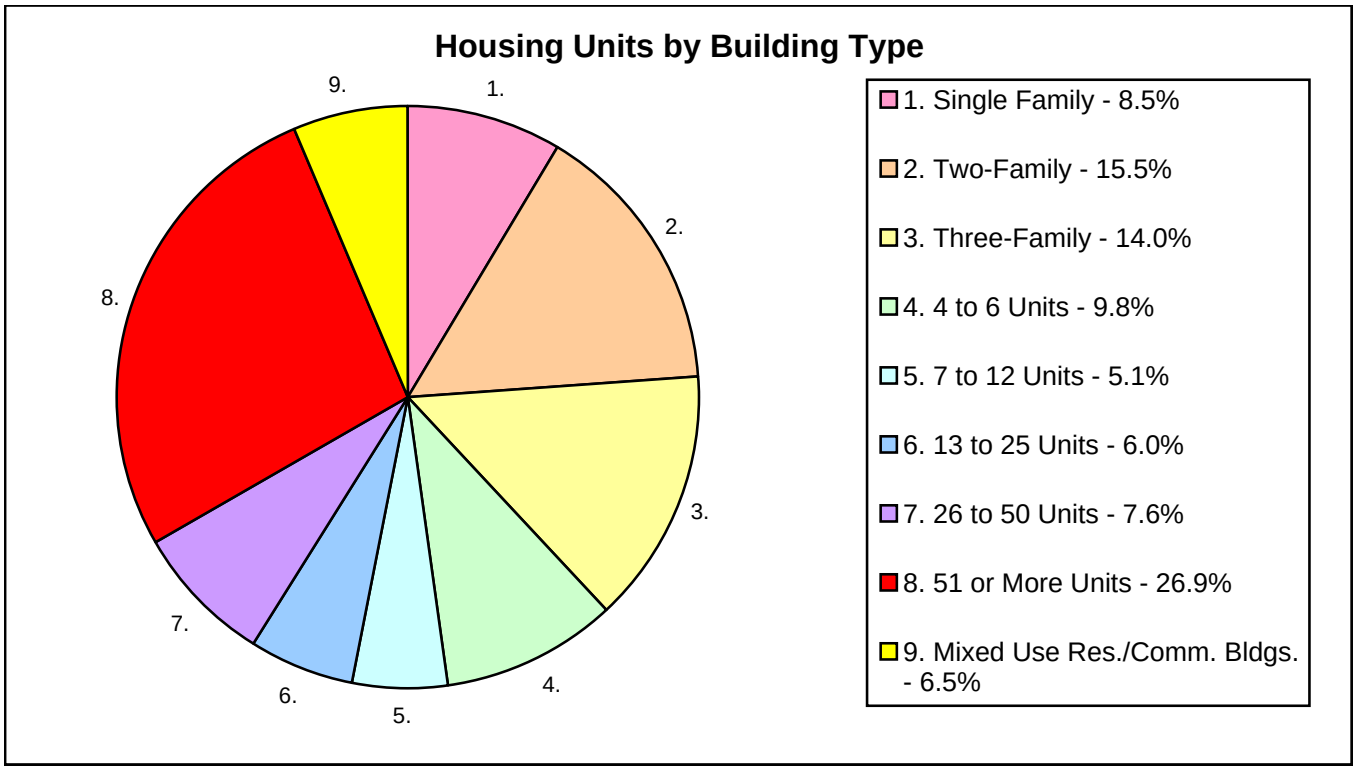
Housing costs have risen steadily in recent years. In 2005 median prices for both single and two family buildings exceeded $700,000, and the median price for condominiums was $419,500. Rents have risen along with housing prices, though in recent years rent increases have moderated. In April 2006 the median rent for a two bedroom apartment was $1,900. As might be expected, housing costs such as these have had a substantial impact on affordability. According to area median income figures, in 2005 a family of three earning the median income could afford to rent a two bedroom apartment at the median market rent. However, the median price for any type of housing for sale was out of reach. To afford the median-priced single family home in 2005 a family would need to earn over 200% of median income.

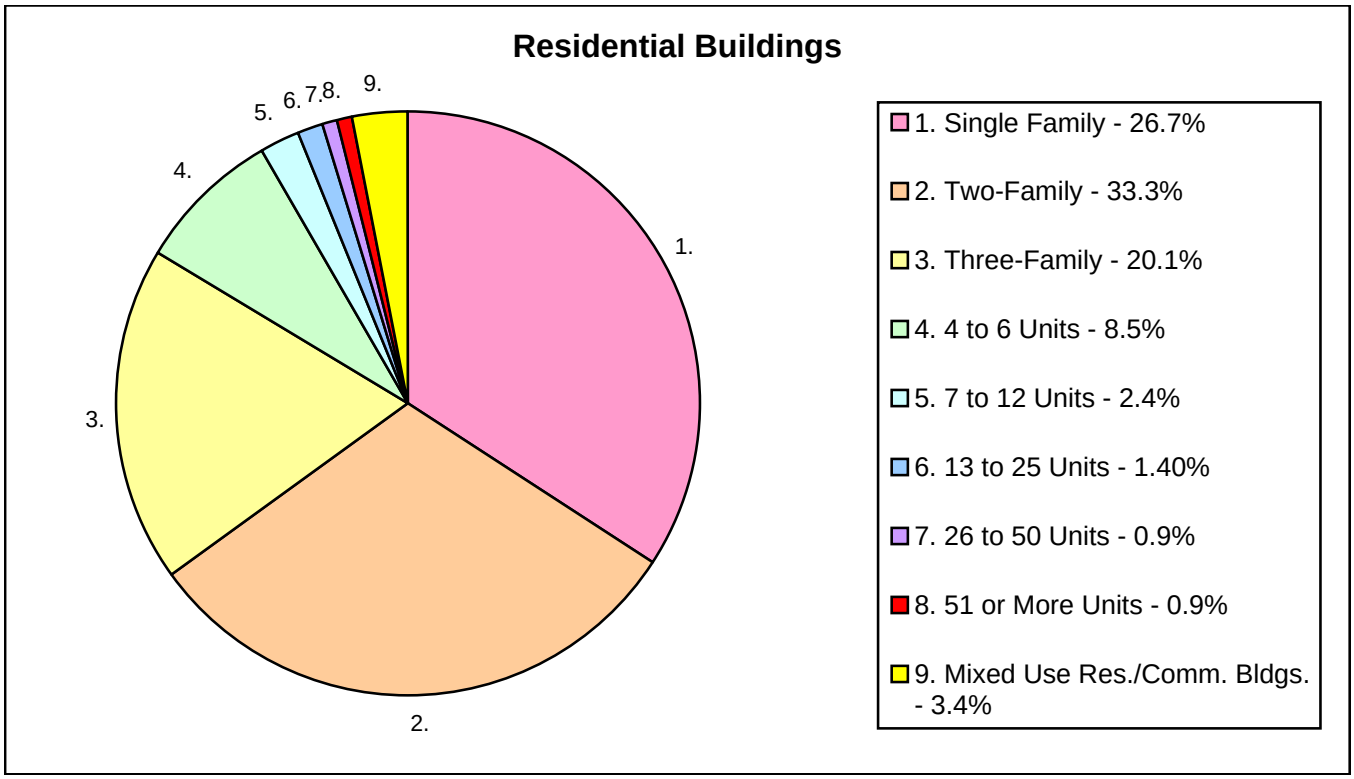
Housing Stock Overview: 2005

Type of Housing[1]	Units		Condominium Units		Building Type	
	Count	%	Count	%	Count	%
Single Family	3,813	8.5%	0	0.0%	3,813	36.7%
Two-Family	6,924	15.5%	906	8.1%	3,462	33.3%
Three-Family	6,258	14.0%	1,659	14.8%	2,086	20.1%
4 to 6 Units	4,401	9.8%	1,253	11.2%	879	8.5%
7 to 12 Units	2,289	5.1%	892	8.0%	250	2.4%
13 to 25 Units	2,678	6.0%	1,221	10.9%	147	1.4%
26 to 50 Units	3,396	7.6%	1,443	12.9%	95	0.9%
51 or More Units	12,042	26.9%	1,357	12.1%	90	0.9%
Mixed Use Res./Comm. Bldgs.	2,885	6.5%	1,657	14.8%	357	3.4%
Total	**44,686**	**100.0%**	**10,388**	**92.9%**	**11,179**	**107.6%**
Rooming Houses	1,080	--	--	--	41	--

1. Includes all market rate and affordable housing, including housing owned by non profit organizations. Includes family style housing operated as dormitories by Harvard and MIT, which are counted as housing units by the U. S. Census. Note that the method used to develop these figures differs from that used in previous years and from the method used by the U. S. Census Bureau. Note that these figures refer to buildings and not to parcels of land.

Housing Stock Overview: 2005



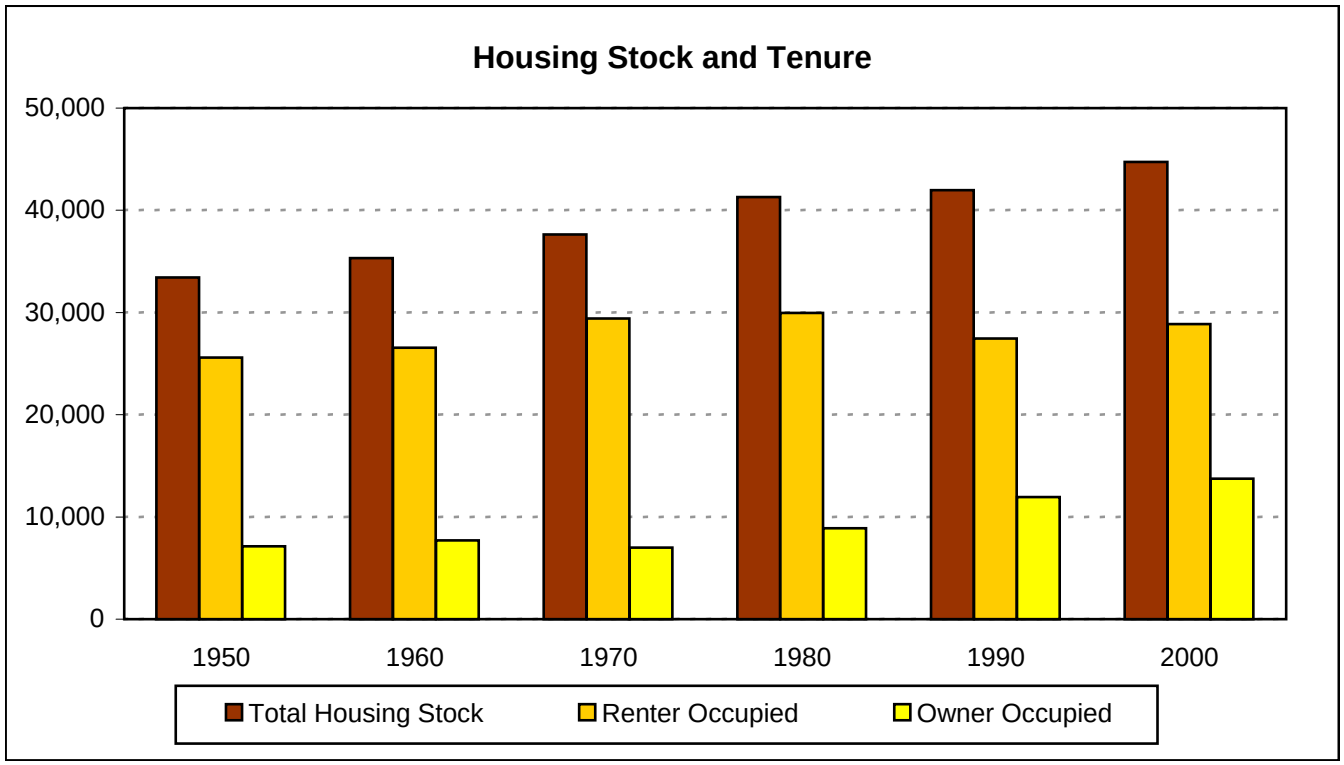


Sources: Cambridge Assessing Department, 2006; Cambridge Community Development Department, 2006.

Housing Stock, Tenure and Vacancy Rate: 1950 - 2000

Year	Total Units[1]	Vacant Units	Vacancy Rate (% Total)	Occupied Units	OWNER OCCUPIED[1] Total	OWNER OCCUPIED[1] as % Occupied	RENTER OCCUPIED Total	RENTER OCCUPIED as % Occupied
1950	33,437	642	1.9%	32,795	7,130	21.7%	25,605	78.1%
1960	35,330	1,077	3.0%	34,253	7,708	21.8%	26,545	77.5%
1970	37,648	1,237	3.3%	36,411	6,990	18.6%	29,421	80.8%
1980	41,300	2,464	6.0%	38,836	8,889	21.5%	29,947	77.1%
1990	41,979	2,574	6.1%	39,405	11,959	28.5%	27,446	69.7%
2000	44,725	2,110	4.7%	42,615	13,760	30.8%	28,855	67.7%

1. The U. S. Census and the Cambridge Assessing Department use different methods for evaluating the size of the housing stock and to determine the owner occupancy rate. Thus, the figures stated above are not strictly comparable to those stated in prior tables.

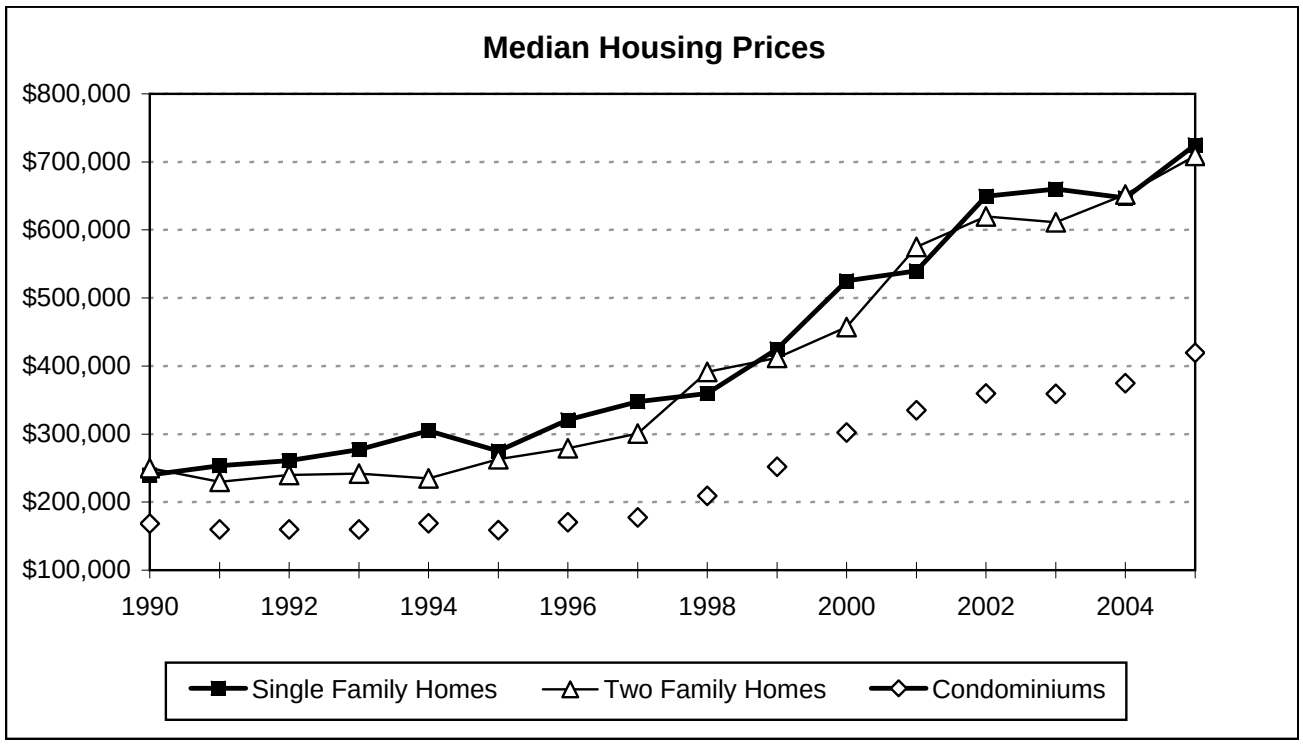


Sources: U. S. Census, Massachusetts General Characteristics, 1950; Massachusetts General Population Characteristics, 1960; Characteristics of the Population, Volume 1, Part 23, Massachusetts, 1970; STF1A tape file, 1980; STF1A tape file, 1990; Summary File 1, 2000.

Median Housing Prices: 1990 - 2005

Year	Single Family[1]	Two Family[1]	Condomiumn[1]
1990	$240,000	$250,000	$168,300
1991	$253,500	$230,000	$160,000
1992	$261,000	$240,000	$160,000
1993	$277,000	$242,000	$160,000
1994	$305,000	$235,000	$169,000
1995	$275,250	$263,000	$159,000
1996	$321,000	$279,000	$170,500
1997	$347,500	$301,000	$177,500
1998	$359,500	$391,500	$209,000
1999	$425,000	$412,000	$252,000
2000	$525,000	$457,500	$302,500
2001	$540,000	$575,000	$335,000
2002	$649,500	$619,750	$359,750
2003	$660,000	$611,250	$359,000
2004	$647,000	$652,250	$375,000
2005	$725,000	$709,000	$419,500

1. *Except for 2005, figures derive from Assessing Department sales data as analyzed by the Cambridge Community Development Department. 2005 figures derive from data provided by Banker and Tradesman. Procedures used to remove non-arms length sales from 2005 data are analogous to those used to develop prior year figures.*

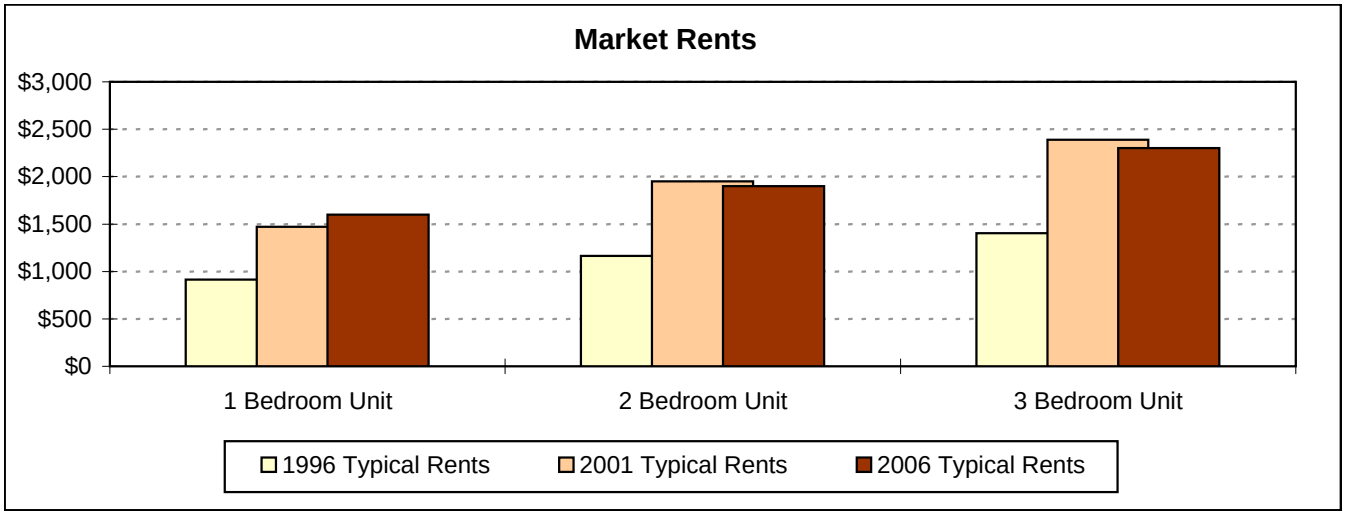


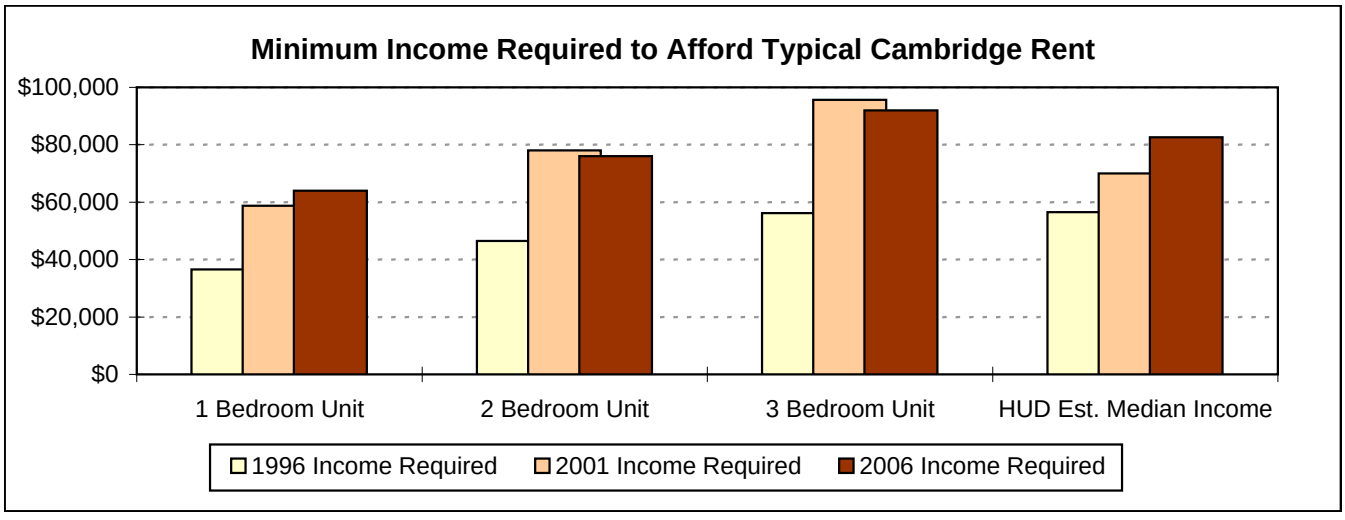
Sources: Cambridge Assessing Department 2006; Cambridge Community Development Department, 2006. Banker and Tradesman, 2006.

Market Rents and Minimum Income Required: 1996 - 2006

	1996		*2001*		*2006*		
Apt. Size	**Typical Rent Asked**	**Income Required[1]**	**Typical Rent Asked**	**Income Required[1]**	**Typical Rent Asked**	**Income Required[1]**	**Increase 1996 to 2006**
1 Bedroom Unit	$913	$36,520	$1,470	$58,800	$1,600	$64,000	75%
2 Bedroom Unit	$1,163	$46,520	$1,950	$78,000	$1,900	$76,000	63%
3 Bedroom Unit	$1,405	$56,200	$2,390	$95,600	$2,300	$92,000	64%
HUD Est. Median for Family of 4	--	$56,500	--	$70,000	--	$82,600	46%

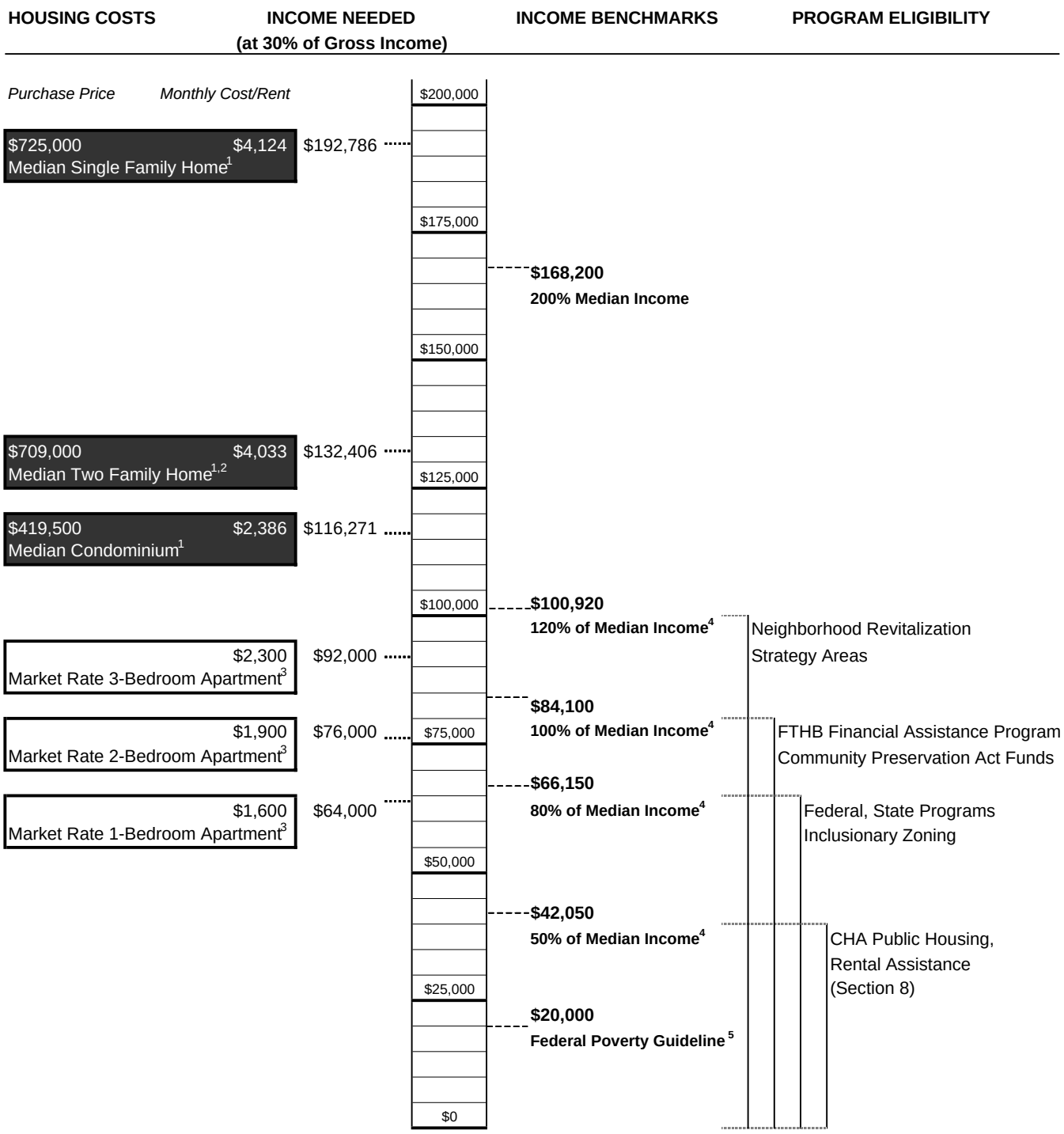
1. Minimum incomes based on payment of 30% of pre-tax income for housing expenses.





Sources: Cambridge Community Development Department, 1996; Harvard Housing Office, 2001; Boston.com rental ads and associated realtor websites, March 6, 2006; Department of Housing and Urban Development, income limits, http://www.huduser.org/datasets/il.html, 2006.

Cambridge Housing Affordability Ladder: 2005



1. *Assumes 10% downpayment, 6.75% interest rate, 30 year mortgage, good personal credit rating, $7.38/$1,000 valuation real estate taxes, single family $1,700 annual insurance, two family $1,925 annual insurance, condominium $200 monthly fee. 2005 median sales prices from Banker and Tradesman data as analyzed by Cambridge Community Development Department staff.*
2. *Assumes $1,900 monthly rent for a two bedroom apartment based March 2006 survey of the Boston Globe and affiliated listings.*
3. *Monthly rental payments from March 2006 survey of the Boston Globe and affiliated listings.*
4. *Median income from 4 person Boston HUD Metro FMR Area (HMFA) 2006 Income Limits.*
5. *Poverty rate from 2006 Federal Department of Health and Human Services poverty guidelines.*

Higher Education

Higher education statistics are drawn from the annual Town Gown Report provided by higher educational institutions to the Planning Board.

Higher Education Statistics: 2005

	Cambridge College	Harvard University	Lesley University	MIT	Total
EMPLOYEES (Figures stated are Full Time Equivalents (FTEs), unless otherwise noted.)					
Staff[1]	114	8,923	387	7,145	16,569
Faculty[1]	437	1,359	130	963	2,889
STUDENT POPULATION					
Undergraduate[2]	650	6,947	1,702	4,132	13,431
Graduate[3]	1,280	9,223	2,353	5,953	18,809
Not in Degree Program	6	4,821	1,085	150	6,062
Total Students in Cambridge	1,936	20,991	5,140	10,235	38,302
STUDENTS HOUSED IN CAMBRIDGE[4]					
Undergraduate Students Housed	169	6,647	669	3,373	10,689
in Dormitories and Other Institutional Housing[5]	0	6,583	610	3,285	10,478
in Off Campus Housing[6]	169	64	59	88	211
Graduate Students Housed	0	5,927	183	4,079	10,189
in Dormitories and Other Institutional Housing[5]	0	2,792	0	2,343	5,135
in Off Campus Housing[6]	incl. above	3,135	183	1,736	5,054
Total Students Housed	169	12,574	852	7,452	20,878
HOUSING					
Dormitories					
Beds	0	7,950	618	5,248	13,816
Buildings	0	91	13	26	130

1. *Cambridge College figures represent the number of persons employed, rather than Full Time Equivalents.*
2. *Lesley University undergraduate figures include Art Institute of Boston students.*
3. *Lesley University graduate student figures include summer students taking graduate level courses.*
4. *Harvard figures do not include Extension School students.*
5. *MIT total includes students housed in dormitories, fraternities, sororities and independent living groups.*
6. *Refers to housing owned by the institution and generally available only to members of the academic community; it does not include either dormitories or housing commonly available for rent to persons not affiliated with the institution.*

Source: Cambridge College, Harvard University, Lesley College and Massachusetts Institute of Technology, Town-Gown Reports, 2005.

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