

Shape of the City:

Making Boston America's Upwardly Mobile City

A SUMMARY OF THE BOSTON INDICATORS REPORT 2015



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Introduction

By Paul S. Grogan, President and CEO of the Boston Foundation

The year 2015 is a watershed for the Boston Foundation, the Boston Indicators Project and the people of our city. It marks the 100th Anniversary of the Boston Foundation and the halfway point of the Boston Indicators Project—a 30-year initiative that will end in 2030, Boston’s 400th anniversary. And it is a time of new leadership in City Hall, with Mayor Martin J. Walsh also choosing 2030 as the endpoint for very ambitious goals in housing, transportation, the environment, the arts, economic development and more.

The Boston Foundation was launched to serve as Greater Boston’s community foundation in 1915 and has always been bound up in the shape of the city—this remarkable place that has played such an outsized role in the story of our country. Boston has survived massive turns of the wheel of fortune over the last 100 years—and the work of the Boston Foundation has always reflected those turns.

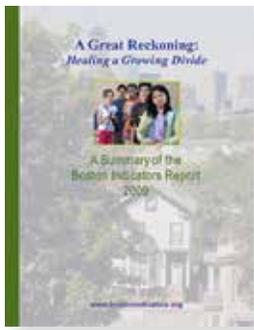
For close to half of its history, the Foundation primarily responded to overwhelming human need resulting from two world wars and the Great Depression. Beginning in the 1960s, as public officials were focused on the “New Boston” envisioned by Mayor John Hynes in concert with business leaders, the Boston Foundation began to move away from funding services and instead played a major role in supporting neighborhood-based innovations, such as the community development corporations, neighborhood health centers and other nonprofits that were changing the city from the bottom up.

Whatever activities the Foundation has engaged in, a deep dedication to social justice—the impulse to help people who are trying to get a foothold on the ladder of opportunity—has connected everything it has done over the last century.

Today, the lowest rungs on that ladder of opportunity are weaker than they have been since the Gilded Age. The issue of income inequality that has gripped the nation in the last few years actually was first identified for us by a Boston Indicators Report published in 2009 called *A Great Reckoning: Healing a Growing Divide*.



2015 MARKS THE 100TH ANNIVERSARY OF THE BOSTON FOUNDATION AND THE HALFWAY POINT OF THE BOSTON INDICATORS PROJECT— A 30-YEAR INITIATIVE THAT IS DESIGNED TO RUN UNTIL 2030, BOSTON’S 400TH ANNIVERSARY.



THE 2009 BOSTON INDICATORS REPORT WAS AMONG THE FIRST TO RAISE THE ISSUE OF THE WIDENING INCOME GAP.

Six years after that report, income inequality is the defining issue of our time, much in the way that urban decline characterized the generation before us. We are seeing a pulling apart of society, a widening gap between the rich and the poor, and an ossification of our social structure.

Americans must find a solution to this rising inequity. We know it can be done because we've done it before. Think of land grant colleges, trust busting, the New Deal, the legitimization of organized labor, the GI Bill and the civil rights movement. Time and again we have reimagined this country and in the process made it far stronger.

We at the Boston Foundation and the Boston Indicators Project believe that our city can turn the issue of income mobility around. It's an ambitious goal, unreasonable even. But remember, this is the city that was literally dying in the 1950s and 1960s. It was no longer a thriving shipping port; in fact the entire waterfront and wharf area was in a serious state of decay. Residents were pouring out of the city for the suburbs and our inner-city neighborhoods were

neglected and full of blight.



In the early 1950s, the *Boston Globe* called our city "a hopeless backwater, a tumbled-down has-been of a city." Just think of the transformation that has occurred in the decades since then.



If we can overcome the obstacles we had just a generation ago, why can't we imagine an even more luminous future for the shape of our city? Demographic data make it clear that the future of humankind will largely be an urban future. More than half of the world's population already lives in cities and that percentage will only continue to grow.

As Harvard urban economist Ed Glaeser points out in his important book, *The Triumph of the City*, as desperate as conditions are in many cities around the world, cities do offer opportunities for economic mobility available nowhere else.

You can't find a stronger statement about the power of urban opportunity than the transformation of Boston over the last 65 years. We have established a globally competitive knowledge economy, which, despite current challenges, has enabled us to outperform the nation in terms of economic growth and jobs.

We have begun the painful journey of confronting the racial divide that revealed itself during the desegregation of our public schools in the 1970s—while knowing that the dialogue must continue if we are to heal the wounds of that era and a long history of racial tensions in our city.

We have transformed the exterior shape of our city into one of the most beautiful metropolises in the world. And we took a giant step toward strengthening the heart and soul of our city when those bombs went off near the finish line of the Boston Marathon in 2013 and we instantly came together as one—becoming a much closer and stronger community in the process.

In 1903, George Bernard Shaw wrote, “The reasonable man adapts himself to the world; the unreasonable man persists in trying to adapt the world to himself. Therefore all progress depends on the unreasonable man.” Shaw left women out of his equation, but we'll forgive him for that, since he supported women's causes so fiercely during the course of his life.

But, as we consider how to strengthen the shape of our city and extend opportunity to everyone in all of our neighborhoods, we must be highly unreasonable.

In our country, change often comes from the bottom up. It bubbles up from local institutions, communities and concerned citizens who see a problem and figure out how to solve it. And, as has been the case since the American Revolution, change that begins in Boston can capture the imagination of the entire country.

As James Carroll wrote in his essay in Norman B. Leventhal's marvelous book *Mapping Boston*: “Boston is precious because it lives in the national imagination and increasingly the world's ... as a still brilliant map of America's good hope.”

In this report, the Boston Indicators Project presents data that shows considerable progress but also illuminates the inequities in our community. It's a helpful background vehicle and jumping off point for a very unreasonable goal—Making Boston America's Upward Mobility City.



**“THE REASONABLE MAN
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TO ADAPT THE WORLD TO
HIMSELF. THEREFORE ALL
PROGRESS DEPENDS ON THE
UNREASONABLE MAN.”**

George Bernard Shaw



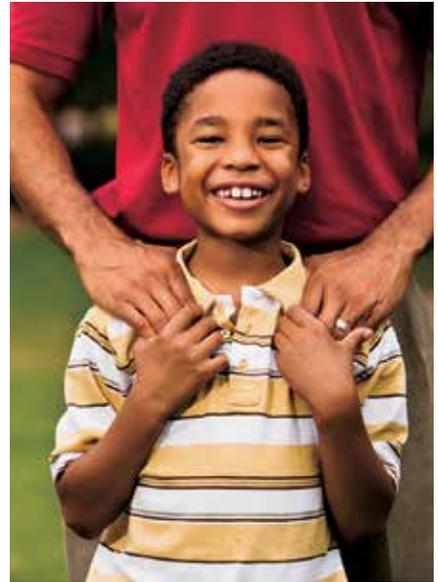
The Measure of a City

The shape of a city can be measured in many ways—by miles of roads, acres of land, number of buildings. The true measure of a city, however, is calculated not by the shape of its borders and geographic boundaries but by the well-being and prosperity of its people.

By almost any measure, Boston is stronger and more vibrant today than at any other time in recent history. Yet this success comes at a moment of inflection for the city—15 years into a new millennium and 15 years away from celebrating its 400th anniversary in 2030.

The city's population is growing larger and more diverse—and is in the midst of a profound demographic and generational shift. The cranes that dot the skyline mark a renaissance of building and development, but many of these new structures are meant for those in the upper reaches of our economy. Meanwhile, much of our infrastructure is old, including our transportation system and our bridges, many of which are crumbling and in dire need of repair. Boston has one of the greenest and cleanest urban environments in America, but it is also among the most vulnerable to the threats of a rising sea and a changing climate. And while Boston ranks among the most economically powerful cities in the world, it is also among the most economically polarized.

In this report, we reflect the forces that have shaped Boston as it is today. First, we look to the past and the roller coaster of expansion and contraction that shaped the city's environment, economy and people from its founding in 1630 through the waning years of the 20th century. Next, we look at Boston in the new millennium and the trends, challenges and moments of celebration and loss that have shaped the city since 2000, when the Boston Indicators Project was created and we began tracking progress toward a set of shared goals for 2030. Finally, we look forward to Boston's future and the defining issue of our day—income inequality and the lack of opportunity. And, as always, we include up-to-date reports on the 10 sectors the Boston Indicators Project has been tracking for 15 years now.



**THE TRUE MEASURE
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ITS PEOPLE.**

The Shape of Boston's Past

BOOMING BOSTON: 1630 – 1950



The geographical shape of Boston was radically transformed in its first 385 years. What began as the five-square-mile Boston neck tripled in size through the 1800s. By the 20th century, Boston had evolved into the 48-square-mile footprint we recognize today. The population, infrastructure, businesses and civic society that filled its expanding shape grew at an equally astounding rate.

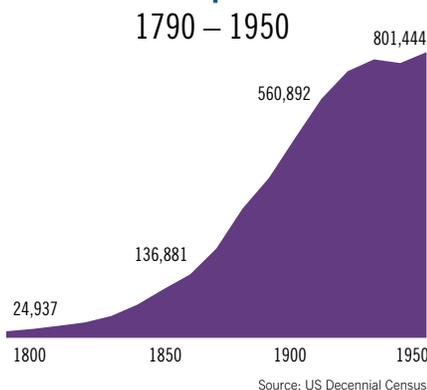
Beginning in 1850, Boston filled in marshland to create the Back Bay; crafted the Emerald Necklace, a 1,100-acre string of verdant public parks; laid

the foundation for the nation's first public library and numerous academic institutions; created museums and theaters that are still in use today, including Symphony Hall; and built the country's first underground rapid transit system, a vast and spidery network of trolleys, rail lines and buses.

Boston was, however, shaped as much by events beyond the city's control as it was by intentional decisions. Catastrophes, like the Great Fire of 1872 and the Molasses Flood in 1919, laid ruin to vast swaths of the city. Weather events, including the hurricane of 1938, brought crippling floods and snow. The influenza pandemic of 1918 and two world wars took their toll as well, costing thousands of Bostonians their lives. The Great Depression tested the city's capacity to prevail through the toughest of times.

Through these peaks and troughs, Boston succeeded because of its people. What began as a population of fewer than 1,000 exploded through the early settlement of freed slaves and waves of immigration from Ireland, Italy, Eastern Europe, China and Syria. By 1950, in the midst of the baby boom, Boston's population eclipsed 800,000, making it the nation's 10th largest city.

City of Boston Total Population 1790 – 1950



THE "NEW BOSTON": 1950 – 2000

When it comes to the shape of a city, the pace of change is equally swift in both directions. Even as its population reached its zenith in 1950, Boston, like so many cities, was already feeling the effects of a postwar generational shift as core manufacturing and industries relocated to the South and returning

GIs moved to the suburbs. Development slowed, the tax base fell by 25 percent, and population growth plateaued. The City on a Hill began to lose its stature in its own eyes and the eyes of the world.

At a crossroads, civic leaders designed and executed a bold vision for a “New Boston” that would take shape in the form of the iconic skyscrapers that were erected in the 1960s and 1970s. Modern civic institutions were built and prominent historic landmarks were preserved. Logan Airport was expanded and major new highways, including the Central Artery, were constructed.

But the shape of this “New Boston” also would emerge from the destructive forces of urban renewal, as diverse and longstanding neighborhoods were razed to make room for new highways. During the course of several decades, hundreds of homes and businesses were demolished in the South End, the West End and Chinatown—and once-bustling areas were left with blight that would last for decades.

After its population peaked at 801,000 in 1950, Boston hemorrhaged residents faster than any other U.S. city, losing 100,000 people in the next decade alone. In the 1980s and 1990s, unemployment reached 15 percent in predominantly minority neighborhoods such as Roxbury, Mattapan and East Boston. The number of homicides, high-school dropouts and teens giving birth peaked during that time.

But, while the “New Boston” was being promoted by civic and business leaders, a very different Boston was also emerging, one that would profoundly shape the city as we know it today.

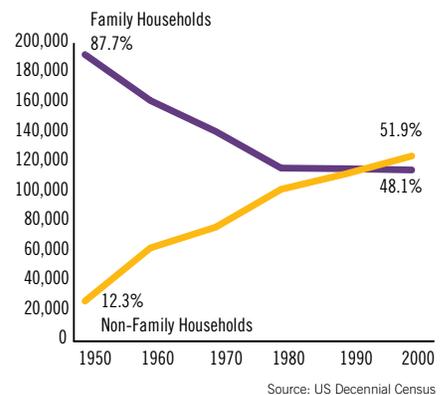
Community development corporations and other nonprofits emerged to successfully preserve neighborhoods and establish community-centered infrastructure. Rising concerns about public health led to the creation of the country’s most robust network of community health centers, while the emerging environmental movement advocated for the cleanup of Boston Harbor, urban agriculture and the preservation of open space.

New and diverse Bostonians from all corners of the globe reshaped the city’s demographic geography. Innovative collaborations among civic leaders, police and residents led to an unprecedented reduction in violence in the 1990s that came to be known as the Boston Miracle.

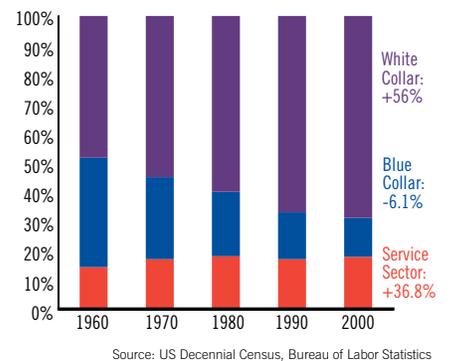
Rapidly growing knowledge and innovation clusters supplemented Boston’s traditional blue-collar workforce. The educational attainment of the city’s workers tripled in as many decades. In the midst of this upswing, Boston’s leaders announced a bold infrastructure plan for the 21st century. Instead of elevating highways and bridges, the city would take them down and bury them.



Boston Households by Type
1950 – 2000



Boston Employment by Occupation
1960 – 2000



Shaping Boston's Present

(2000 – 2015)

SUCCESS FOR A 21ST-CENTURY CITY CAN BE MEASURED BY THE WELL-BEING OF ITS POPULATION, ITS ECONOMY, ITS BUILT AND NATURAL ENVIRONMENTS—AND ITS QUALITY OF OPPORTUNITY.

If the value of a city were determined solely by population, Boston would not crack the nation's top 20. El Paso, Jacksonville, Memphis and Columbus are all bigger than Boston when measured in this way. Instead, success for a 21st-century city can be measured by the well-being of its population, its economy, its built and natural environments—and its quality of opportunity. By those measures, no other U.S. city outperforms its size and scale as much as Boston.

Today, Boston is a job-rich, well-educated, ethnically diverse, youthful and dynamic city that can reasonably lay claim to holding a place among the nation's most robust cultural sectors, best urban school districts, cleanest urban beaches and top innovation economies.

BOSTON'S COMPETITIVE EDGE

Ranking 21st in total population, Boston leads the nation—and often the world—across a number of measures of competitive advantage:

- #1 Global Innovation City**, Energy Efficient City, arts organizations per capita (in U.S.), affordable housing stock among major cities
- #2** city in U.S. for **car-free commuters** behind New York City
- #3 best U.S. city for parks**, open space and walkability
- #4 largest public transit system** in U.S.
- #5 most educated** workforce in U.S.
- #6** startup ecosystem in the world, **healthiest U.S. city**
- #7** in **globally connected** population
- #9 largest regional economy**

A RAPID TURNAROUND

In some ways, what makes Boston's success in 2015 so remarkable is not the measurable change that has occurred since 1970, 1980 or 1990, but how many of the headlines have changed since the 2002, 2004 or even 2006 Boston Indicators Project reports. Some examples:

Population loss: In 2000, Boston led the nation's large cities in total out-migration, its stagnant population only maintained by foreign immigration.

Since then, Boston has added more than 60,000 residents and is growing faster than any other city east of Ohio and north of Washington D.C.

Talent retention: The 2004 Indicators Report found that Boston ranked 16th of the 20 largest U.S. cities in attracting young, educated talent—behind Atlanta, San Francisco, Denver and Dallas. Today, Boston’s population growth is driven by 20- to 34-year-olds, with 62 percent of them having a BA or higher—more than in any other major city in the United States.

Loss of venerable institutions: A decade ago, consolidations, mergers and sales led to the departure of longtime New England institutions such as Filene’s, John Hancock, Fleet Bank—even the venerable *Atlantic* magazine—and raised concerns about the strength of business and civic leadership in Boston. Today, a new generation of companies, such as Vertex, Converse and New Balance, are bringing thousands of employees back to the city. At the same time, an ecosystem of startups in the city’s Innovation District and beyond are reshaping Boston’s economic and physical landscape.

Student outcomes: In the first Boston Indicators Project report in 2000, Boston’s high school dropout rate was 8.5 percent—50 percent higher than many other urban districts. Today, the dropout rate has been cut to 3.8 percent while college enrollment and persistence rates have increased.

Support for cultural assets: In 2000, the cost of outstanding cultural facilities maintenance needs was estimated to be as much as \$400 million. Since then, a new Massachusetts Cultural Facilities Fund has pumped millions of dollars into renovating and building new cultural strongholds. And a surge in attention focused on the arts has helped Boston and other cities in the state experience a cultural renaissance. A new Institute of Contemporary Art was built, the Museum of Fine Arts and the Isabella Stewart Gardner Museum were expanded and the Paramount and Strand theaters were renovated.

Transportation, mobility & development: When the Boston Indicators began in 2000, the Big Dig was Boston’s biggest opportunity for development and for reducing traffic in a city where the number of cars and vehicle miles traveled were growing faster than the population. Today, there are 90,000 fewer cars in Boston, which has become a multimodal transit hub of bike paths and lanes, bike and car shares, rapid transit with late-night service and new transit-oriented development along the Fairmount Line, Brighton Landing and the Green Line Extension.

CHALLENGES LINGER

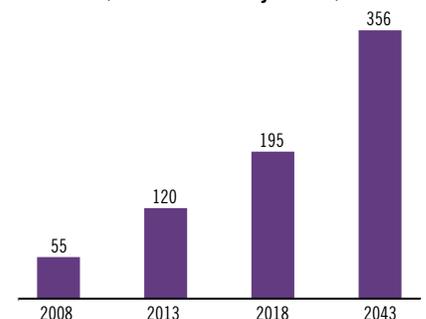
While this rapid change is cause for celebration, many of Boston’s challenges in 2015 are the same they were a decade ago. Among them:

Third-grade reading: Since testing began in 2001, Boston’s percentage of third graders scoring proficient or higher on the MCAS reading test has remained stubbornly low—never rising above 37 percent.



Total Miles of Bike Paths & Lanes

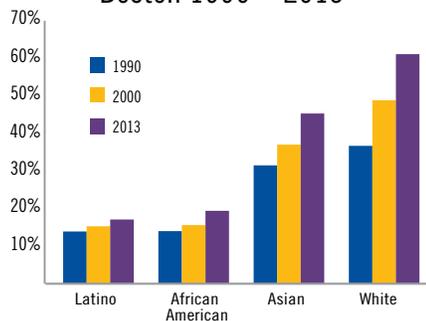
City of Boston 2008 – 2043
(Actual & Projected)



Source: City of Boston

Percent of Adults 25 Years and Older with a Bachelor's Degree or Higher by Race/Ethnicity

Boston 1990 – 2013



Source: US Decennial Census, 2013 American Community Survey



Educational disparities: Overall, nearly half of adults over the age of 25 in Boston have a Bachelor's Degree or higher, but only about 25 percent of African American or Latino adults do—a rate that has not changed since 1990.

Disconnected youth: A recent study by Measure of America found Boston has the lowest rate of “disconnected youth” in the nation, with just 9 percent of 16- to 24-year-olds not in school or not working – but rates climb as high as 17 percent for young people living in Mission Hill, Roxbury and East Boston.

Cost of living: Real income has actually declined by 4 percent in Boston compared to 1990, but housing costs in the city have risen by 55 percent. As of 2014, Boston's Consumer Price Index was 28 percent higher than the national urban average.

While many of Boston's greatest challenges in 2015 have not changed since 2000, their context has. New leadership, new infrastructure and new growth are creating immense new opportunity.

In the time since our last report, the Boston experience has been shaped by an incredible number of memorable moments—both high and low—that are reminders of who we are, how far we have come and how quickly things can change.

We have seen global conditions intensify with the Ebola outbreak in West Africa and the violent conflicts that have touched nearly every region in the world. Locally, we lived through the unimaginable tragedy of the Boston Marathon bombings and the responding rise in civic pride that led to a new slogan for the city—“Boston Strong.”

We've also seen a surge of civic activism on the hyper-local scale. In 2014, non-union employees and customers successfully boycotted the Market Basket supermarket chain in what the *Boston Globe* called “one of the highest-profile worker movements in years.” After police officers killed black men in Missouri and New York, protestors took to the streets of Boston in solidarity with a national movement protesting police violence against blacks.

Natural, weather-related events, including the near-miss of Hurricane Sandy in 2012 and the record-breaking snowfall in the winter of 2015, reminded us of our vulnerability as a coastal city and the weaknesses in our transportation infrastructure.

In October of 2014, we collectively mourned the loss of Mayor Thomas M. Menino, who led Boston over these last two incredible decades, and welcomed a new era of civic leadership with Mayor Martin J. Walsh.

With these recent events still fresh in our minds, but with the full knowledge that challenges and opportunities remain, we can see the shape of Boston in 2015 as a pivot point—the product of events and decisions of our past but also a new baseline to guide to us as we look to the city's 400th anniversary.

Toward Greater Income Equity and Opportunity

THE TEST OF OUR GENERATION

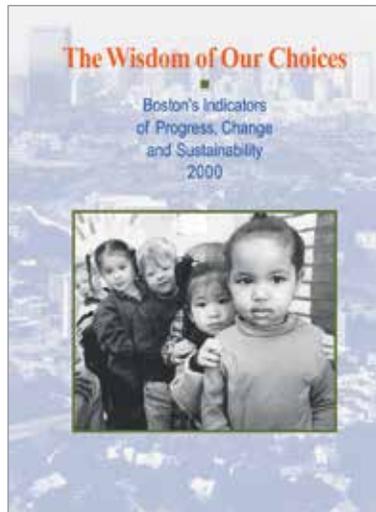
As we look to the issues that will undoubtedly shape Boston in 2030 and beyond, three stand out as overarching challenges that will test our mettle. All of them are undeniably complex and interconnected: climate change, infrastructure and income inequality. When it comes to the potential impact of climate change, Boston is one of the country's most at-risk cities. While it is leading the way in terms of planning for coming environmental changes, the threat remains both severe and immediate. In the last few years alone, Boston has had several "storm of the century" near-misses. We should only expect weather phenomena to intensify as the projected annual number of days above 90 degrees is on track to triple by 2050. Additionally, climate volatility means that severe winters, complete with costly and damaging blizzards, may become more common. The rising sea level could prove catastrophic for cities across the globe and for Boston in particular.

As far as infrastructure is concerned, Boston is in the midst of a development boom. Familiar city gems, like the Filene's and Ferdinand buildings, are undergoing renovations while construction cranes dot the city's landscape. With bicycle lanes, walkways, Hubway bike-sharing, car-sharing and late-night MBTA services, Boston is now a multimodal city. And, after decades of deferred maintenance, our public transit system is set to expand.

To keep up with a population that is expected to top 700,000 by 2030, Mayor Walsh has called for the creation of 53,000 additional housing units. While causing consternation in some circles, Boston's failed bid for the 2024 summer Olympics did prompt greater attention to needed upgrades to roads, subways and housing. In previous decades, the need for infrastructure improvements was not matched by public and political desire for fresh investments. That has begun to change, but our greatest hurdle is one of equal opportunity for all.



THE STILL DEEPENING DIVIDE



Since the Boston Indicators Project began its work 15 years ago, Boston has faced one consistent and seemingly intractable challenge that has emerged as the greatest threat to our future success as an inclusive city of opportunity for everyone: the growing divide between rich and poor.

What began as a warning in our 2000 report, *The Wisdom of Our Choices*, about the potential risk of Boston developing a two-tiered knowledge economy of “haves and have-nots” became a stark and troubling reality by 2009, when we reported that Boston was not only one of the most unequal cities in the nation (7th) but had a Gini index ranking (a measure of inequality) on par with Cote d’Ivoire and Uruguay.

Given the recent accelerating pace of change, the measure of inequality in Boston today is even worse than when the Indicators Project began in 2000.

The gap between the rich and the poor is growing. In 2000, the top 20 percent of Boston’s households earned roughly 24 times more than the bottom 20 percent; as of 2013 (the most recent data available to us), the top quintile earned nearly 30 times more than the bottom quintile.

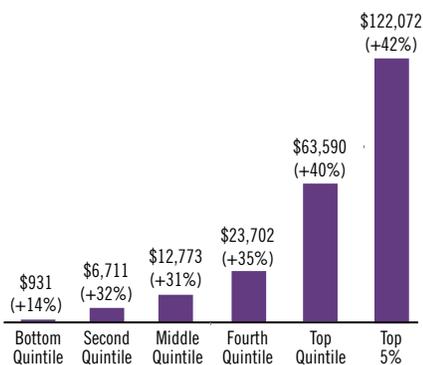
The rich are getting richer. In 2000, the top 5 percent of households earned nearly 44 times more than the bottom 20 percent; by 2013, those top earners were bringing home 54 times more than their counterparts in the lowest quintile. And in the past 15 years, the median inflation-adjusted income of the top 5 percent soared by 42.5 percent (roughly \$122,000).

The poor are not keeping up. Median inflation-adjusted income for the bottom 20 percent of Boston’s households rose only 14 percent (roughly \$930), while the cost of buying and renting homes continues to go up.

When the economy collapsed in 2008, setting off the worst recession in decades, it brought the issue of income inequality front and center for the Boston Indicators Project. In 2009, long before it became a major topic of op eds and national reports, the Boston Indicators Project published a report titled *A Great Reckoning: Healing a Growing Divide*, focused almost entirely on the topic of income inequality in Boston that within a few years would dominate the headlines of newspapers across America.

And in 2011, the Project published a report titled *The Measure of Poverty*, which reflected the increasing stress on low-income households in a high-cost city and region in the wake of what was being called the “Great Recession.” While Massachusetts and Boston were doing better than the nation in recovering from the recession, unemployment rates remained abnormally high—and they were highest for the least well educated. Joblessness and underemployment, in turn

Change in Median Household Income by Quintile Boston 2000 – 2013 (Inflation-Adjusted 2013 dollars)



Source: 2000 Decennial Census, 2013 American Community Survey 1 Year Estimates

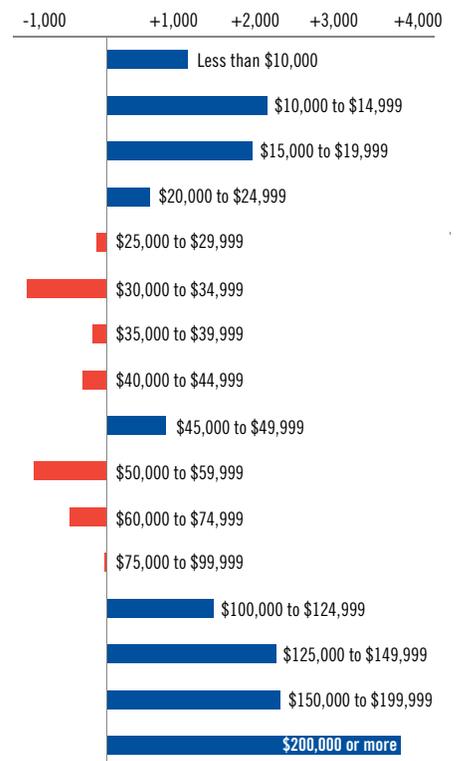


were producing fewer tax revenues—and a state budget gap. Massachusetts agencies were heading into their fourth fiscal year of deep cuts in a wide array of services. Many programs proven to protect children and families from the harshest effects of poverty were eliminated or severely reduced.

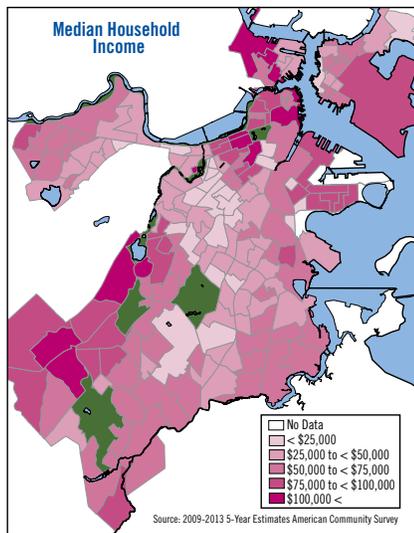
As the late Mayor Thomas M. Menino said at the time, “While Boston is exceptionally strong and resilient, some of us experience great opportunity and prosperity while others experience great hardship, and growing inequalities now threaten to divide our great nation and its great cities. This is the issue of our time. A city works best when it works for all residents. Let us make sure the recovery is shared widely. We won’t develop all of the solutions here, but we can start here.”

Since the Great Recession, the divide has only continued to deepen in Boston, which has been adding very poor and very rich households at a faster rate than any other income demographic. Of the more than 14,000 households Boston added between 2008 and 2013, nearly half earned less than \$10,000 annually. At the opposite end of the spectrum, nearly 40 percent of the new households earned more than \$100,000. By contrast, the number of households with incomes between \$25,000 and \$99,000 declined by nearly 1,000, signaling a hollowing-out of the middle class. As of 2015, Boston ranks as the nation’s third most unequal city behind Atlanta and San Francisco.

Change in Boston Households by Income 2008 – 2013



Source: American Community Survey 2008 & 2013 1 Year Estimates

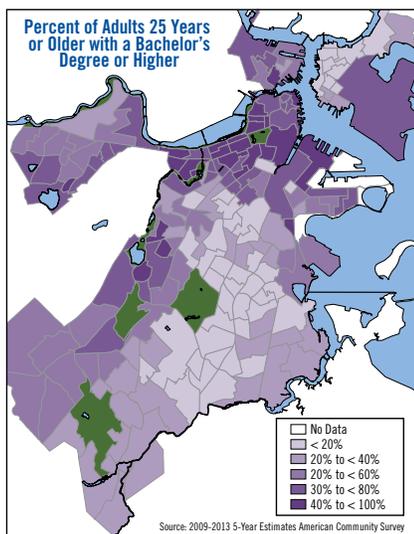


The measure of inequality in Boston takes a distinct shape in the city's different neighborhoods:

Income: Aggregate income—or the total amount earned by Bostonians—was nearly \$20 billion in 2013. However, this is not distributed equally. Just 5% of households (most clustered in a few neighborhoods) earn 25% of that \$20 billion.

Educational Attainment: Boston ranks among the nation's most-educated cities with roughly half of adults holding a Bachelor's degree or higher. However, fewer than 20 percent of adults living in core inner-city neighborhoods have a college degree.

Child Poverty: Citywide, slightly fewer than 20 percent of Boston's children under 18 live in poverty. However, in certain neighborhoods, as many as 40 percent of children live in households below the federal poverty line, which for a family of four with two children is \$24,000.



UPWARD MOBILITY

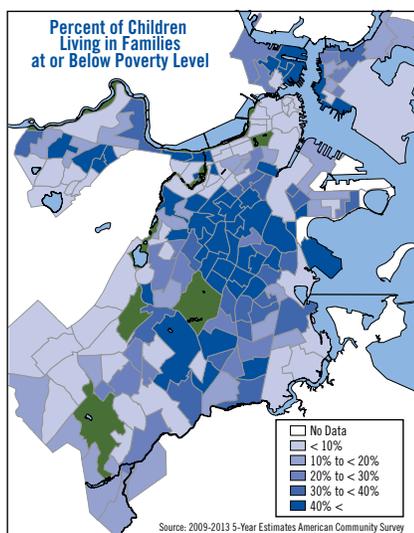
Recent research has shed new light on the levers of opportunity that drive well-being, prosperity and, ultimately, upward socioeconomic mobility—but with mixed-result headlines for Boston's children:

A 2014 study by the Equality of Opportunity Project ranked Metro Boston as the 7th most upwardly mobile region in the nation, yet this translates to just 1 in 10 children raised in the bottom 10 percent ever reaching the top 10 percent of earners;

The 2015 Child Opportunity Index by Brandeis University and Ohio State University ranked Boston among the worst in the nation in opportunity disparities by race and ethnicity with 6 in 10 African American and Hispanic/Latino children living in "low opportunity" neighborhoods compared to 1 in 10 white children;

Massachusetts ranked 3rd in the Annie E. Casey Kids Count Child Well-being Index, but dropped to 17th in measures of economic security and opportunity;

A 2015 follow-up study by the Equality of Opportunity Project found deep negative associations between the place a child grows up and his or her earnings as an adult. For example, the study found children in middle-income households in Suffolk County can expect to earn \$1,200 less per year as adults compared to children raised in middle-income households nationwide.



Informing the Dialogue

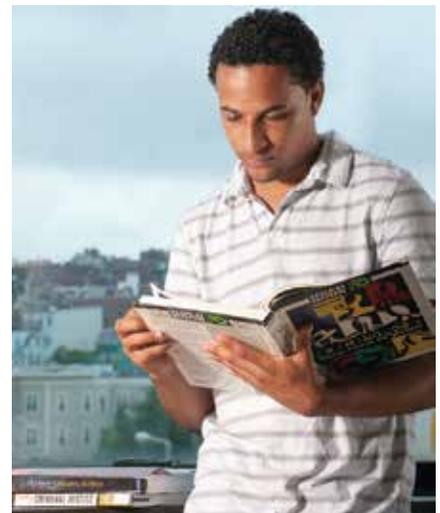
As the Boston Indicators Project prepared to release its 2015 report and the Boston Foundation began to plan ways to honor its 100th anniversary, it was decided that the Project's major focus going forward should be inspired by the original questions it posed to the community. The first summary report of the Boston Indicators Project, published in 2000, posed three questions for Boston:

- 1 Can a city extend the benefits of economic success to all of its residents and neighborhoods?
- 2 Can it retain a vibrant mix of income, ethnic and age diversity even as it attracts higher income residents?
- 3 Can it create pathways to educational and economic success for all of its young people?

A LIFETIME OF OPPORTUNITY

Given today's paradox of vibrant economic growth coupled with worsening inequality, the answers to these questions for Boston in 2015 remain unclear. In order to inform a dialogue that will explore ways to make Boston a truly upwardly mobile environment for everyone, the Boston Indicators Project has designed an "opportunity index," called *A Lifetime of Opportunity*. It was born from a desire to quickly and clearly understand the levels of opportunity Bostonians are afforded. In the course of developing the framework, the Project studied numerous other opportunity indices that apply on a national level, some with special studies within regions. Popular indices, such as Opportunity Nation and those employed by the Pew Research Center, proved useful in shaping Boston's approach. More useful still was the insight gained by comparing various frameworks. By and large, Boston's indices drew from two frameworks for mobility: intragenerational and intergenerational.

Intragenerational mobility is primarily concerned with acknowledging the socioeconomic position in which one begins life as compared to the position one attains during adulthood. Simply put, intragenerational mobility asks, "How likely is it that an individual born poor winds up rich, or vice versa?" This framework pays a great deal of attention to the moments at which opportunities exist for a person to climb the socioeconomic ladder,





key inflection points at which interventions, such as education, can make a real difference. An intragenerational framework highlights access to quality primary and secondary education, an open job market and livable wages as critical components of opportunity.

While still concerned with an individual's path through life, intergenerational mobility provides an additional framework of analysis. Focused on variables that shift over generations, intergenerational mobility asks how longstanding conditions affect an individual's life outcomes. An intergenerational framework emphasizes the accumulation (or lack thereof) of familial wealth over generations and place-based variables, including segregation by income, race and ethnicity. While other place-based variables, such as access to

social networks that might lead to job opportunities or the accrual of the very particular cultural capital most often found in workplaces, are both significant and profound in consequence, an inability to accurately and consistently gather relevant data about them prevents them from being included in many opportunity indices.



It is important to note that while they are distinct frameworks, intra- and inter-generational mobility are not competing models. They both contribute significant bodies of knowledge to an overall understanding of mobility. Critically, the variables assessed in intergenerational mobility frameworks influence those surfaced in intragenerational frameworks. The opposite is also true. They are best understood as lenses that view the same problem from different focal distances. In order to create a simple framework that reflects much of the current research on opportunity, the Boston Indicators Project chose to include elements of both inter- and intra-generational frameworks in its opportunity index.

The Brookings Institution's *Social Genome Project* and Harvard University's *Equality of Opportunity Project* were the two most important guides in creating the index for Boston. The *Social Genome Project*, intragenerational in nature, uses a life-cycle model to think about "pathways to the middle class." It is being used by Mayor Setti Warren to shape his vision for Newton, Massachusetts. Its work draws from the research of numerous scholars, most notably Isabel Sawhill.

The *Equality of Opportunity Project*, intergenerational in nature, highlights place-based conditions that directly contribute to individuals' future incomes. That work is led by Raj Chetty, an economist best known for his research on issues of income and poverty, and the keynote speaker at a major Boston Foundation Centennial event early in 2015 called "Shape of the City." Often, the intergenerational approach is considered to reflect what has been called achieving the "American Dream."



Drawing from the work of the Social Genome Project, the first four of the six variables of Boston's index relate to intragenerational frameworks of opportunity:

- 1 The percent of children born at a low birth weight (in Boston, it is 8.4 percent);
- 2 The percent of 3- and 4-year-olds enrolled in school (in Boston, it is 59 percent);
- 3 The percent of the population 25 and under with an associate's degree or higher (in Boston, it is 49.7 percent);
- 4 The unemployment rate (in Boston, it is 5.2 percent).

Each variable pinpoints a particular moment of opportunity in an individual's life: a healthy birth followed by a timely start to school contributes to the attainment of a secondary degree which, ultimately, increases the likelihood of steady employment.

The fifth variable, median household income, relates to both intergenerational and intragenerational frameworks. Clearly, median household income is a determinant of an individual's socioeconomic status, thus enabling (or failing to enable) one to climb the social ladder. Additionally, it aids in the accumulation of wealth, or lack thereof, thus finding relevance to intergenerational frameworks of opportunity. In Boston, median income is roughly \$53,500, but it varies widely by race.

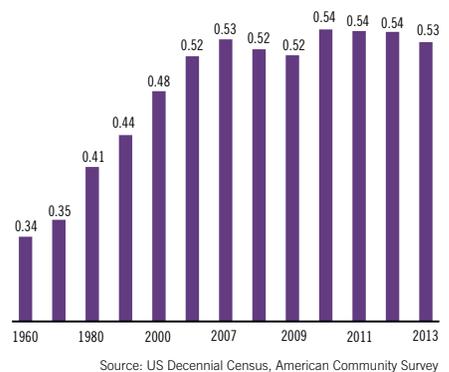
The final variable, the Gini index, relates to intergenerational mobility. Longstanding conditions of inequality worsen an individual's chances of rising through the socioeconomic strata. The Gini index measures income inequality, with 0 representing a perfectly equal situation and 1 representing a perfectly unequal situation. Boston is in the middle of that spectrum at .53, which means we still have a lot of work to do.

The *Lifetime of Opportunity* index was not designed to be the final word on opportunity, inequality or any other field. It will evolve over time to reflect the priorities that emerge through a long and in-depth dialogue in Boston. It will continue to highlight new data, and, critically, to incorporate the insights gained from conversations with thinkers, policymakers and stakeholders.

As the index moves forward, the Boston Indicators Project will find ways to include ever-more useful data on educational achievement, wages and segregation. Economic mobility, the central and most pressing issue of our time, deserves to be tracked, discussed and acted on consistently and over long swathes of time. It was with that mission in mind, and with the hope of continually evolving the new index's framework to reflect Boston's socioeconomic reality and the data therein, that led to the creation of *A Lifetime of Opportunity*. Go to tbf.org/opportunity, to view the index.



Gini Index of Income Inequality Boston 1960 – 2013





Conclusion

The questions posed in this report focus on an issue the Boston Foundation itself has grappled with since its earliest years. During the Great Depression, the Foundation's very first director bemoaned the fact that, while he yearned to make a real and permanent dent in poverty in Boston, instead he was being forced to hold a bucket to the overflow of distress without the capacity to reach up and shut off the spigot.

In 1985, the first major initiative designed and conducted by the Boston Foundation was called the "Poverty Impact Program." It directed \$10 million over five years to issues such as maternal and infant health care and teenage pregnancy. The Boston Indicators Project itself began as the Boston Persistent Poverty Project, a community-driven effort to involve people living in poverty in solutions to their distress by conducting in-depth "listening" sessions throughout the communities struggling most in the city.

Over the last 10 years, the Boston Foundation has focused a tremendous portion of its funding, research and policy work on issues directly related to economic mobility—with special focus on the tremendous impact a high-quality education can have on those born into poverty.

Looking to 2030, additional questions remain for Boston: How do we overcome persistent and growing inequality? How do we build a Boston that is diverse and inclusive, adaptable to demographic change and supportive of upward mobility? How do we create a Boston filled with opportunity?

Two contemporary academics and thinkers, Raj Chetty, Bloomberg Professor of Economics at Harvard, and Robert Putnam, the Malkin Professor of Public Policy at Harvard, have spoken at Boston Foundation Centennial events in recent months and emphasized the importance of education to economic mobility.

Prof. Chetty, who was the keynote speaker at the Boston Foundation's Centennial *Shape of the City* event, also stresses the importance for children of growing up in mixed-income neighborhoods. One measure he focused





on in his speech was the “geography of upward mobility,” which reveals that economic mobility varies enormously in different American cities. He reported that, when compared with other cities, as a whole, Boston does quite well, but that Suffolk County, which includes inner-city Boston and the neighborhoods in which many poor children of color begin their lives, has much lower rates of upward mobility than neighboring Middlesex and Norfolk counties.

Prof. Robert Putnam, author of the recently published book *Our Kids: The American Dream in Crisis*, spoke at the Boston Foundation at the first in a series of *Understanding Boston* forums on Boston’s growing inequality gap and the course to greater income equity and opportunity. Prof. Putnam lists high-quality early childhood education, higher wages for low-income workers and criminal justice reform as key to bridging the inequality gap in America. In education, he points specifically to the role higher education plays in lifting young people out of poverty, especially the importance of completing college.

Boston has several special initiatives that address the issues raised by the various opportunity indices and great thinkers in this field. One is the Success Boston College Completion Initiative, which was launched in 2008 by the City of the Boston, the Boston Public Schools, the Boston Foundation, the Boston Private Industry Council, University of Massachusetts Boston and dozens of other Massachusetts colleges and universities. It utilizes an intensive “coaching for completion” model that already has raised college graduation rates of Boston Public Schools graduates attending college from 35 to 50 percent. So far, more than 2,000 students from six graduating classes have been served and coached through Success Boston.

The Social Innovation Fund, a program of the Corporation for National and Community Service, awarded a grant to the Boston Foundation in the fall of 2014 to help grow the impact of Success Boston as an innovative, community-based solution that has presented compelling evidence of improving the lives of low-income people. The grant allows Success Boston to expand from serving 300 students to 1,000 students annually.

The Boston Opportunity Agenda is a long-term public/private partnership among the City of Boston, the Boston Public Schools, the city’s leading public charities and many local foundations to ensure that all Boston residents have access to the education necessary for upward economic mobility, civic engagement, and lifelong learning for themselves and their families.

Since partnership and collaboration are key to solving a problem as complex and vast as income inequality, these efforts stand as encouraging models for the future. The Boston Indicators Project, through its website, reports and opportunity index will continue to inform the dialogue that will shape Boston as it moves toward its 400th anniversary in 2030, with the goal of building on Boston’s reputation for innovation in all sectors of community life.



Sector Progress Reports 2000 – 2015

The Boston Indicators Project is the product of one of the most ambitious information-gathering and civic participation efforts undertaken by a major city. Initiated in 1997 through a collaborative effort of the Boston Foundation, the City of Boston and the Metropolitan Area Planning Council—and informed by hundreds of academic experts, local institutions, community and business leaders, nonprofit organizations and individual residents—the mission of the Boston Indicators Project is to:

- Democratize access to data and information and provide a framework for organizing and understanding data across sectors and boundaries;
- Foster informed public discourse using data to inform high-leverage strategies and make wise choices for the future; and
- Track progress on shared civic goals that represent a shared long-term vision of success for Boston, its neighborhoods and the region in 2030.

Developed over the course of three years of convening, conversation and refinement, the Boston Indicators Project is recognized as one of the world's most comprehensive systems for measuring quality of life and includes more than 70 asset-oriented goals and 150 geographically-nested measures across 10 sectors and six cross-cutting topics: competitive edge; children and youth; equity-race/ethnicity; neighborhoods; sustainability and fiscal health.

The Project, supported and run by the Boston Foundation, is committed to producing a biennial report of progress through the year 2030 that draws from data tracked in the framework, ongoing civic convenings and the wealth of information and research generated by Boston's public agencies, civic institutions, think tanks and community-based organizations.

This report marks the midpoint of the Boston Indicators Project timeline of tracking progress from 2000 to 2030. To honor this milestone, this special report includes a 20-page section that examines key data and trends across the 10 sectors in which it tracks change and progress and takes stock of Boston today relative to the goals developed by the community in 2000.

We encourage you to visit www.bostonindicators.org for continuously updated information about these 10 sectors of community life and beyond and to view our opportunity index at www.tbf.org/opportunity.



Civic Vitality



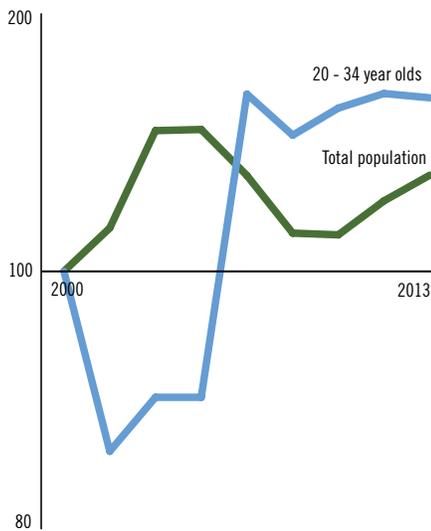
Civic vitality reflects a community's connectedness and bonds of trust, or social capital, created through inclusive civil discourse and collaboration and strengthened by places to gather, open access to information, equitable opportunities for participation, representative leadership and a strong "third sector."

VISION 2030: *Boston is a city of economically and ethnically diverse neighborhoods with a new "Vault" of representative business and civic leaders; opportunities for civic engagement exist at all ages; technology facilitates*

participation in voting and access to information.

PROGRESS 2015: *Boston's competitive edge in diversity has not yet overcome barriers of residential segregation and inclusive leadership.*

Population Growth Rates
Boston 2000 – 2013



Diverse human capital is arguably Boston's greatest natural resource and potential competitive advantage. Since 2000 Boston has achieved the demographic milestones of becoming a "majority minority" city and surpassing 600,000 largely due to growing foreign-born and younger working-age residents.

Bostonians represent more than 140 different ethnicities and, with 27% of the population born in another country, Boston ranks 7th among the nation's largest cities in share of foreign-born residents.

Boston is now more diverse across income, place of birth and language spoken at home as well as race/ethnicity, according to research by the Boston Redevelopment Authority. And in 2012, Dorchester's 02125 zip code ranked as the nation's 8th most-diverse neighborhood.

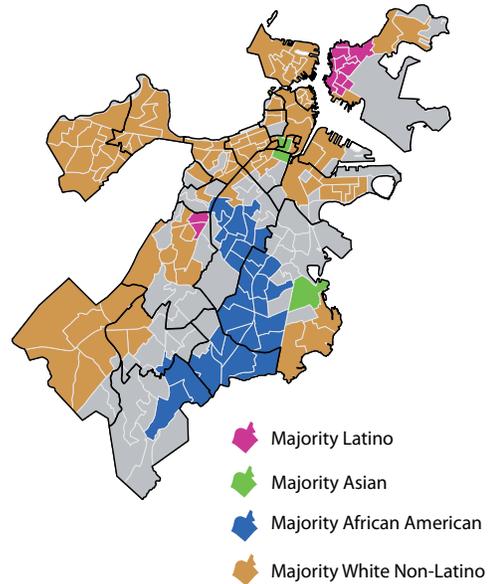
However, lines of racial/ethnic segregation and concentration persist across neighborhoods. One race/ethnicity—white, Asian, Latino or African American—makes up the population majority in more than 75% of Boston's census tracts. But lack of diversity is most strongly correlated with the share

of the population that is white non-Latino. The census tracts identified by the Boston Redevelopment Authority as the least diverse—located in Charlestown, the North End and South Boston—are all more than 90% white non-Hispanic/Latino.

And while Boston has undergone a notable shift towards more representative leadership of men and women of color, LGBTQ residents and immigrants, there is much room for improvement. The most recent Commonwealth Compact Benchmark report of statewide workplace diversity found 7% of the workforce of color held senior management positions compared to 15% of the white workforce. And women have never held more than 14% of corporate board positions statewide since the Boston Club began reporting in 2003.

Looking forward, the influx of young “knowledge workers” may contribute to a less diverse Boston. More than half of Boston’s population growth from 2000 to 2013 was from 20- to 34-year-olds who now account for 35% of Boston’s total population—more than any other large city in the US. However, more than 55% of 20- to 34-year-olds are white, non-Latino—about the same as the population 65 and over. And while Boston’s total white population grew by less than 1% from 2000 to 2013, the population of white 20- to 34-year-olds grew by more than 12%.

Boston Census Tracts with a Racial/Ethnic Majority 2009 – 2013



Source: American Community Survey 5-Year Estimates

BY THE NUMBERS:

38.17% voter turnout rate in the 2013 election

42 neighborhood, ethnic and special interest newspapers in circulation in Boston

899,406 books circulated through the Boston Public Library system

10,070 tax exempt nonprofits in the City of Boston

70,000 hours volunteered through Boston Cares

The Cultural Life & the Arts



The Cultural Life & the Arts sector reflects a community's cultural vibrancy and diverse traditions with inclusive opportunities for participation in performing and visual arts, architectural heritage, museums and public art. Enhanced by the creative expression of community members, the sector also includes a broad range of "creative" jobs in commercial and industrial design, architecture, writing and publishing, historic sites and tours, museums and related tourism.

VISION 2030: *Boston leads the nation in public and philanthropic investment*

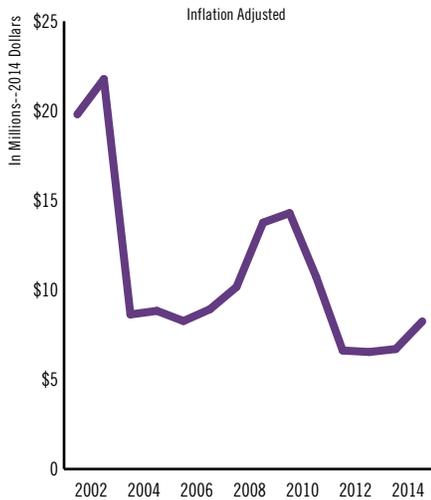
in the arts; cultural activities reflect the city's diversity and are universally accessible to all languages, abilities and incomes; every child has access to the arts; tourism and the creative sector are major regional economic drivers.

PROGRESS 2015: *Boston's cultural landscape is more robust than ever and ripe for future growth with new audiences but inconsistent funding remains a weakness.*

Metro Boston—with the city at its center—has more arts organizations per capita than any other region in the nation and the more than 8,000 nonprofit arts and culture organizations statewide employ more than 26,000 people, and generate over \$1 billion annually, according to ArtsBoston's 2014 Arts Factor report.

Additions to facilities and investments in information infrastructure have only strengthened this already vibrant sector. Major expansions and renovations since 2000, such as the opening of the ICA on Fan Pier, the construction of the MFA's Art of the Americas wing and the expansion of the Isabella Stewart Gardner Museum have elevated Boston's arts and museum sector on a global scale. Public art supported by the Boston Art Commission now occupies 245 locations throughout Boston's neighborhoods.

MA Cultural Council Funding 2001 – 2015



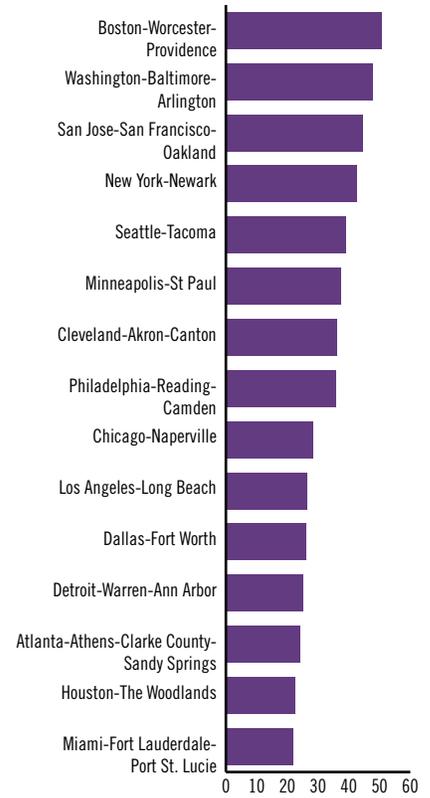
Source: Mass Budget & Policy Center

Despite the high profile of many Boston arts institutions, public funding remains tenuous at best and private funding is often disproportionately steered toward the largest institutions. According to the Cultural Data Project, roughly 10.7% of contributed revenue to Massachusetts’ arts and culture nonprofits came from government and public funds compared to 19% in Illinois, 21% in Pennsylvania and 27% in New York. Meanwhile, funding for the Massachusetts Cultural Council, the primary source of public grants, declined from a peak of more than \$16 million in FY02 to just over \$11 million in FY15—a 45% reduction when adjusted for inflation.

And while Boston has arguably more opportunities for arts participation than any other city, there is room for improvement when it comes to engaging the full population of audience. According to Americans for the Arts Local Arts Index, a smaller share of adults in Suffolk County engage in the arts than in competitor regions: from 2009-2011, 25.7% of adults visited a museum compared to 40.4% in Washington DC, 44.5% in New York and more than 50% in San Francisco. Consumers also spent less on arts and entertainment in Suffolk County, at \$277 per capita compared to \$331 in Washington DC, \$413 in New York and \$420 per capita in San Francisco.

According to data collected through ArtsBoston’s Audience Participation Initiative, 75% of people who participate in the arts across Greater Boston only attend one event at one location.

Arts & Cultural Organizations per 100,000 by Combined Statistical Area 2012



Source: National Center for Charitable Statistics

BY THE NUMBERS:

- 19.2 million** total visitors to Boston in 2014
- \$8.6 billion** in economic impact from tourism
- 12** annual neighborhood open studios
- 245** public art installations through Boston
- 86%** of BPS K-8 students receive weekly arts education

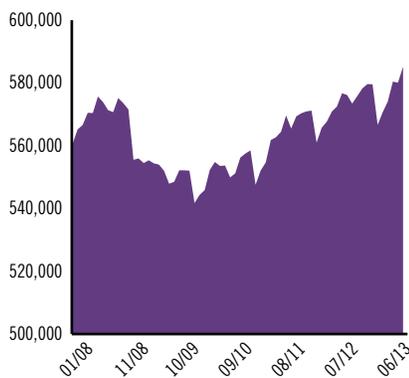
Economy



An economy is the sum total of an area's production, distribution, consumption and exchange of goods and services resulting from investments of labor and financial capital in the use of that area's natural, human and technological resources. Levels of consumption, savings and investment among the for-profit, nonprofit and public sectors across localities and income groups determine an economy's dynamism, equilibrium, fairness and sustainability.

VISION 2030: *Boston's innovation economy is comprised of a diverse mix of industries and occupations including traditional clusters of biotech, finance, education and health, as well as creative and green industries, and a strong portfolio of locally-owned small business; workers have the skills required to fill available jobs; youth have ample employment opportunities; income and cost grow proportionately for all households.*

Monthly Employment in Boston 2008 – 2014



Source: Massachusetts EOLWFD, ES-202

PROGRESS 2015: *Boston's economy, by most measures, is even stronger than before the Great Recession but increasing income polarization and a rising cost of living means that the recovery has not been evenly shared.*

Metro Boston has the nation's 9th largest regional economy, valued at more than \$370 billion in Q1 2014—a 16% increase from 2008. Aggregate income in 2013 grew to the pre-recession level of \$19 billion, as did its median household income, now topping \$53,000.

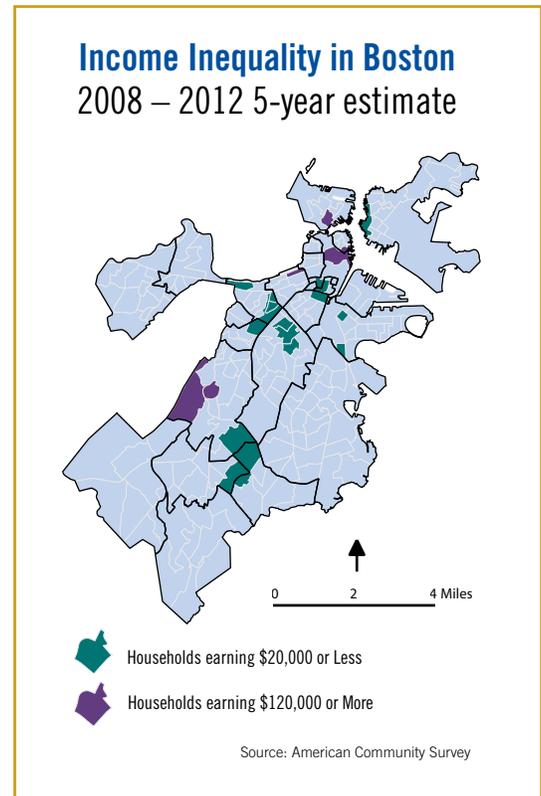
Boston recovered all jobs lost in the Great Recession between 2009 and 2014, accounting for 17% of the region's job growth while unemployment fell to 5.5% in 2015. Recent research conducted by the Equality of Opportunity Project put Metro Boston 7th in the nation for intergenerational upward economic mobility.

However, income inequality is deepening in Boston, spurred by wage polarization and a cost of living that is outpacing income gains. Among the net jobs added since the end of the recession, more than 85% paid a weekly wage of \$718 or less—roughly half of Boston’s city-wide average weekly wage—and when adjusted for inflation Boston’s current median household income is actually 4% less than it was in 1990.

At the same time, the region’s cost of living has risen faster than the nation’s with households in Metro Boston spending 28% more on necessities like food, fuel, housing and transportation than the national average in 2012, according to the Bureau of Labor Statistics.

In this context the nature of poverty is changing in Boston. The population in extreme poverty—those earning less than 50% of the Federal Poverty Level—increased from 8.4% to 11.3% between 2008 and 2013, and among children, rates nearly doubled from 8.6% to 15.4%.

More of Boston’s poor households are working poor—in 2013, 15% of households in poverty had at least two adults working compared to fewer than 10% of poor households in 2008. Roughly 1 in 3 Bostonians live in households earning between 185% and 400% of the Federal Poverty Level, meaning they may earn too much to qualify for food, housing, heat or childcare subsidies but not enough to earn a sustainable income, which the Crittenton Women’s Union Economic Independence Initiative estimates at more than \$67,000 for a single parent and three children.



BY THE NUMBERS:

60,393 employed in Health Care & Social Assistance

38,389 employed in Finance & Insurance

28,891 employed in Educational Services

10.5% odds that a child from Boston born in the bottom income quintile will reach the top quintile as an adult

46% reduction in state local aid since 2001



Education

Education is the process of acquiring knowledge and the skills of critical, creative thinking as well as the ecosystem of personal, community-based and formal institutions that support lifelong learning, including teachers and families, early education and day-care centers, public and private K-12 schools, institutions of higher

education, continuing and adult education programs, technical training and a network of community-based programs run by nonprofit organizations.

VISION 2030: *Boston has the nation's most highly educated workforce and is famous for its world class opportunities and outcomes at all points in the education pipeline; parents have a menu of school options and move to Boston for the schools; students have access to technology, arts and year-long learning through collaborative school-community partnerships; public education, from early ed to higher ed, is sustainably funded.*

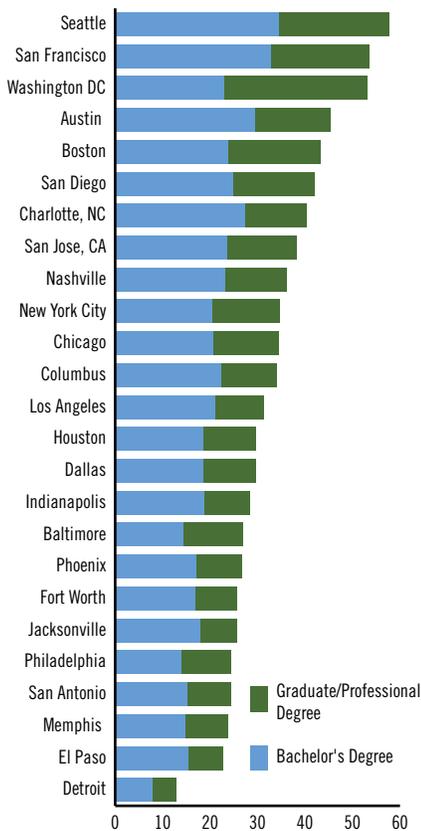
PROGRESS 2015: *Boston is among the nation's most educated cities and is a leader in urban public education, but weak links remain at critical junctures in the cradle-to-career education pipeline.*

Boston ranks 5th among the nation's largest cities in the share of adults age 25 and older with a Bachelor's Degree or higher—at 43%—and sits 4th, behind only Seattle, San Francisco and Washington, D.C., in the share of adults with a graduate or professional degree. Among the workforce of 20- to 34-year-olds who comprise a third of Boston's population, more than 60% have a Bachelor's Degree or higher—more than any other large city.

Through collaborative investments and partnerships, Boston has invested in the cradle-to-career pipeline to develop homegrown talent, starting with early education and extending through adult education and career training. The passage of An Act Relative to the Achievement Gap Act in 2010 by the Massachusetts Legislature catalyzed the widespread adoption of innovative practices and autonomies in public schools, leading to across-the-board growth in proficiency in English Language Arts and Math, particularly among African-American, Latino and low-income students. Innovative new programs and investments are moving the needle on some of Boston's most critical challenges: high school and college completion. Since 2009, the BPS

Educational Attainment Top US Cities, 2012

Adults 25 Years and Over with a BA or Higher



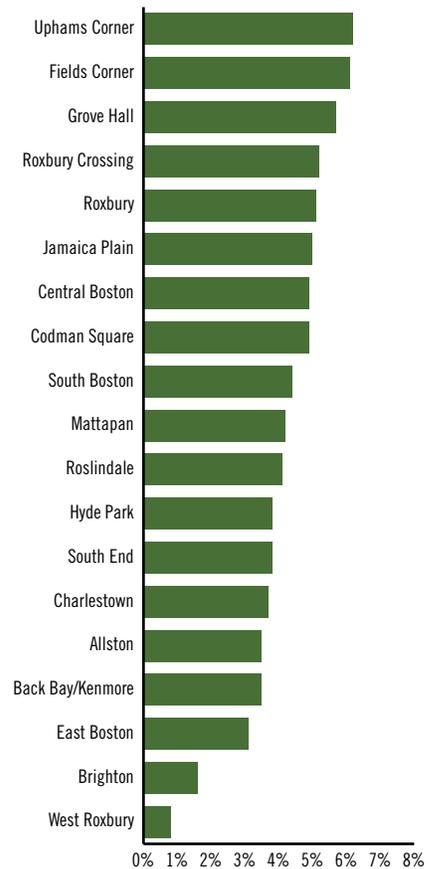
Source: American Community Survey

Dropout Recovery effort has successfully reengaged over 1,200 former high school dropouts reducing the annual drop-out rate to an all-time low of 3.8% in 2014. Since its launch in 2008 as an ambitious city-wide college completion effort, Success Boston has supported more than 2,300 BPS graduates with individual coaching to get ready, get in and get through the first two years of post-secondary education. As a result, the percent of BPS graduates completing a two- or four-year degree increased from 35% of the Class of 2000 to 50% of the Class of 2007. In September 2014, Success Boston was awarded \$2.7 million through the Social Innovation Fund which will increase the number of participants from 300 to 1,000 per year and putting the effort well on track to the goal of 70% of the BPS Class of 2011 earning a college degree.

Despite these improvements, key challenges remain in Boston’s education pipeline. While the number of 3- and 4-year-olds in Boston has remained stable near 13,000, the share who are not enrolled in preschool or pre-K increased from 32% to 41% between 2008 and 2013 with low-to-middle income children enrolled at the lowest rates—in 2013 more than 60% of 3- and 4-year-olds in families earning between 200% and 300% of Federal Poverty Level were not enrolled in school.

Another key measure, third-grade reading proficiency, has never surpassed 37% in the history of the MCAS. Though Boston public high school dropout rates have reached historic lows, there is great variation by neighborhood. In 2012-13, the dropout rate for students from West Roxbury was 0.8% compared to the 6.2% dropout rate among students from Upham’s Corner. At the end of the pipeline, Boston is challenged by deep disparities in educational attainment among African-American and Latino adults, with only 25% having a BA or higher—roughly the same rates as in 1990.

Boston Public Schools Annual Dropout Rate, 2012 – 2013



Source: Boston Public Schools

BY THE NUMBERS:

35 colleges and universities within Boston city limits

43 private and parochial K-12 schools

26 Head Start locations

107,890 out-of-school time program slots listed with Boston After School & Beyond

11,000 high-needs students participating in the Boston Summer Learning Project

50% of BPS class of 2007 received a postsecondary degree

Environment & Energy

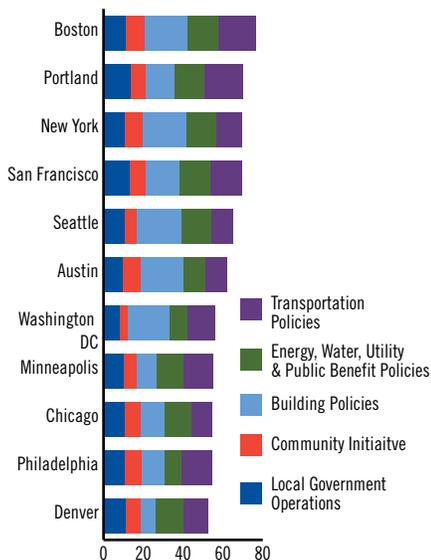


The environment encompasses an area's natural resources—land, air, water, wildlife biodiversity—and how they intersect with the built environment to support safety, recreation, commerce, industry, housing, transportation and energy generation that mitigates the local effects of global climate change.

VISION 2030: Boston is recognized globally as a "green city," achieving sharp reductions in greenhouse gas emissions through a robust green economy cluster innovating new solar

and wind technologies, retrofitting older homes, adding new LEED housing and office buildings, and investing in low-emission buses and transit. Boston has the nation's premier urban parks and waterways and all residents live within 10 minutes of safe, protected open space.

Ranking of Most Energy Efficient Cities 2013



Source: American Council for an Energy Efficient Economy

PROGRESS 2015: Boston is the nation's premier city for urban parks, beaches and open space and a global leader in environmental sustainability and performance, but it is also among the most vulnerable to short-term global climate change.

Boston consistently ranks as one of the nation's top cities for urban environment and sustainability, ranking 6th in North America on the Siemens Green City Index, 3rd in the Trust for Public Lands Park Score Index, and as the nation's most energy efficient city, according to the American Council for an Energy Efficient Economy.

Boston has achieved considerable progress toward goals set in the 2007 Climate Action Plan:

As of 2012, Boston municipal operations had reduced emissions by 9%, surpassing the goal of a 7% reduction. The City is on track to reduce greenhouse gas emissions 20% by 2020 and 80% by 2050;

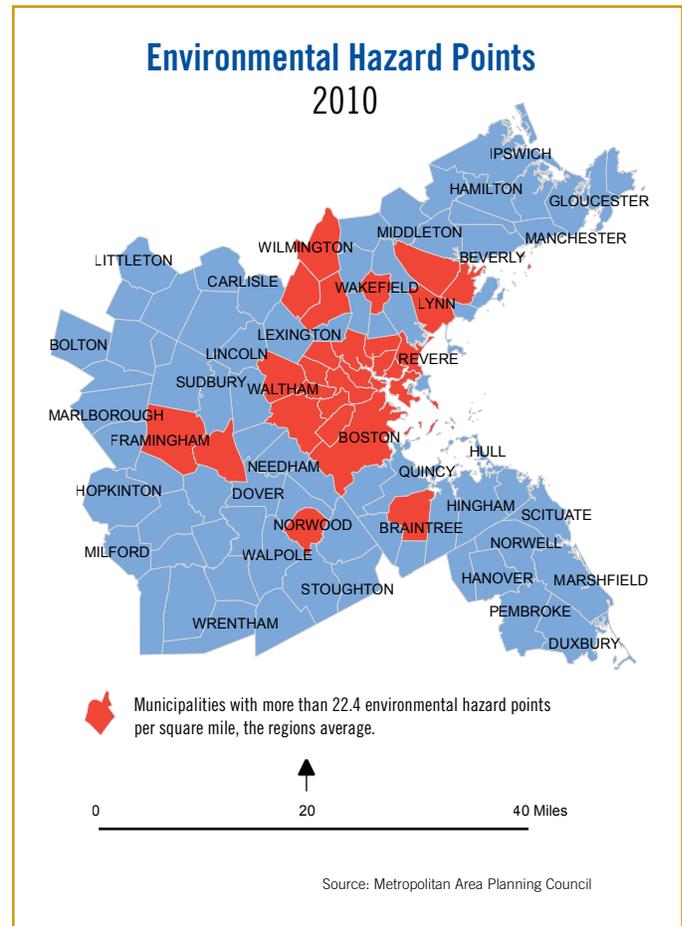
The first city in the nation to require green building standards through zoning, Boston has built more than 180 LEED-certified buildings—up from 53 in 2008—contributing to Massachusetts ranking 4th among states in number of LEED-certified buildings as of 2014; has planted more than 4,000

trees city-wide since 2007 with the goal of 100,000 by 2020; and, has among the state's highest share of hybrid vehicles at 22.3 per 1,000 registered vehicles.

Boston's environmental quality also has greatly improved, with the number of days with poor air quality declining from 42 in 2003 to just 7 in 2012 and ozone levels reaching the lowest reading since 2000. And following decades of cleanup and remediation, Boston now boasts an urban beach system that is among the nation's cleanest with nearly 100% swimmable days.

However, the region has not achieved full environmental equity. The highest concentration of environmental hazards are located the region's cities and towns with higher poverty rates and larger concentrations of children, such as Chelsea with 188 hazards per square mile, followed by Cambridge with 167, Everett with 165.5, Somerville with 135 and Boston with 121 hazards per square mile.

Despite having one of the nation's strongest climate change mitigation plans, Boston remains acutely vulnerable to the threat of sea level rise. According to the Boston Harbor Association's jarring report, *Preparing for the Rising Tide*, a high-water mark just 7.5 feet higher than the current average would place more than 30% of the city's land area under flood levels and threaten as much as 40% of all industrial, commercial and mixed-use buildings.



BY THE NUMBERS:

35,858 home energy audits completed since 2009

7,000+ acres of protected open space in Boston

175 community gardens

1,400 acres of urban wilds

17 days above 90 degrees in 2013 (historical average, 9 days)

82% days the Charles River met safe boating standards

Health



Health reflects an individual's physical and mental well-being as well as the private and public infrastructure to support universal access to options for healthy food, opportunities for exercise, recreation, supportive relationships and high-quality, affordable health care, as well as reduced exposure to environmental toxins and unsafe conditions—all designed to promote health and prevent disease and disparities.

VISION 2030: *Boston's world-class*

network of teaching hospitals, community health centers and public health agencies have reduced rates of preventable chronic disease and eliminated racial/ethnic disparities in outcomes by ensuring all neighborhoods have access to affordable healthy food, physical activity and low-cost health care.

PROGRESS 2015: *Boston is the nation's premier city for health care and health-promoting environments, but has not yet bent the curve on high-cost, preventable disease and disparities.*

Health stands at the center of Boston's economy and identity. Home to the world's most recognized medical teaching hospitals and research facilities, health care is the largest sector of Boston's economy, accounting for more than 1 out of every 5 jobs in the city.

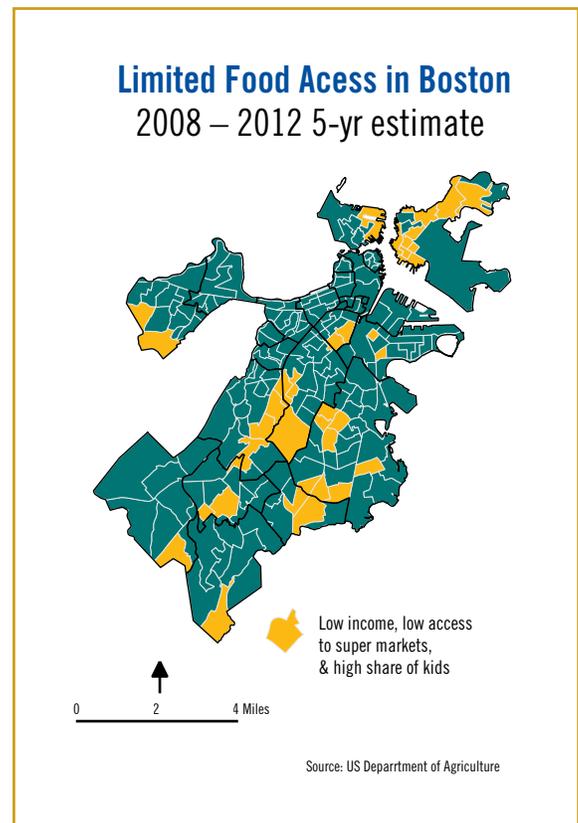
Boston is equally recognized as a leader in public health promotion, access and infrastructure. In 2014, Metro Boston ranked 9th among the 50 largest metros on the American Fitness Index, leading in access to care with 93% of residents having health insurance and 133.5 Primary Care Physicians per 100,000 residents, well above 90th percentile for metropolitan areas with 105.6 per 100,000.

Metro Boston also leads the nation in community and environmental indicators, such as parks as a share of land area (16% compared to 10.6%), access to farmers markets (38.6 per million people compared to 13.1), park-related spending per capita (\$110 compared to \$101) and total recreational facilities such as dog parks, bike paths and playgrounds.

Targeted public health interventions have moved the needle on a number of key outcomes. Fewer than 1% of children have elevated blood lead levels compared to 13.5% in 1995. Smoking rates have declined among adults from 24% in 2001 to 14.4% in 2013 as well as among teens, from 15% to 10% over the same time. Teen birth rates declined by 17% between 2007 and 2013.

However, the greatest health challenges—high-cost, preventable chronic diseases—are largely affected by community-level factors, such as housing, environmental exposure, amenities, public safety, employment and income—the social determinants of health. In Boston equitable access to healthy options, including grocery stores, vary greatly by neighborhood, contributing to persistent disparities in health outcomes.

According to the Health of Boston 2013, Black and Latino residents experience higher levels of obesity, chronic disease and poorer health outcomes than white and Asian residents. Specifically, Black and Latino residents had higher rates than whites of: low birth weight births, infant deaths, asthma emergency department visits for children less than 5 years old, heart disease hospitalizations, cerebrovascular disease and diabetes-related hospitalizations and adults who reported experiencing persistent sadness.



BY THE NUMBERS:

25 teaching, in-patient and rehab hospitals

26 neighborhood-based community health centers

\$1.78 Billion received from the National Institutes of Health

16 of 242 convenience stores city-wide operating as Healthy Corner Stores

68% BPS high school students not receiving physical education

17% BPS high school students who drink at least one sugar-sweetened beverage daily

Housing



Housing is a fundamental building block of livable, vibrant communities and an adequate supply of affordable, safe and attractive options assists communities in attracting and retaining a diverse population and workforce. Physical patterns of development—from transit-oriented to car-dependent—reflect and drive a community's social equity and environmental sustainability.

VISION 2030: *Boston is a model city for smart growth and affordability, having developed green, high-density, transit-*

oriented, diverse housing stock to house a diverse population of students, aging boomers, newcomers, individuals and families of all incomes; homelessness and blight is nonexistent.

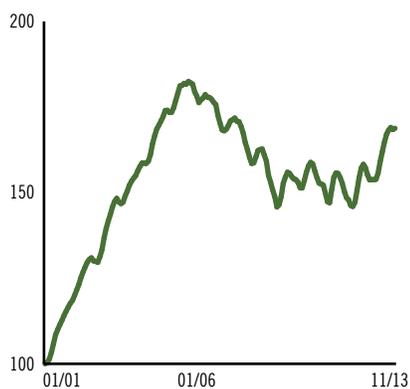
PROGRESS 2015: *Boston's housing economy is growing faster than any time in recent history, but the city is also among the nation's least affordable.*

Having more than recovered from the housing collapse and foreclosure crisis associated with the Great Recession, Boston's housing market is now booming. According to the Case Schiller Home Price Index, Greater Boston's home prices increased by 23% since the market bottom in 2009 and by 79% since January 2000.

Despite more than three years of economic recession and stagnation, the city of Boston has added more housing units since 2000 than at any other time in the last half century, adding more than 20,000 housing units including 6,100 affordable units and 10,000 new dorm beds through the Leading the Way 10-year strategic housing plan.

The pace of growth and innovation has accelerated. In 2013, Boston introduced its first micro-housing units geared toward young professionals, approved the first parking-free condo building and approved or broke ground on 114 new projects that include the development of 11,706 additional housing units with the goal of adding 53,000 by 2030.

S&P Case-Schiller Index
Metro-Boston, 2001 – 2013



Despite the increasing supply, affordability remains one of Boston's greatest housing challenges, particularly for middle-income and extremely low-income households.

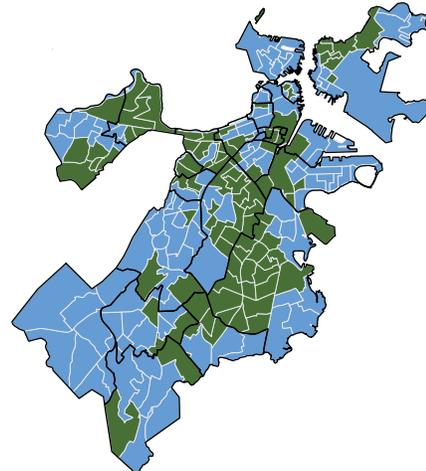
According to the real estate website and data provider Trulia, Boston is the nation's 17th least affordable housing market for the middle class—a trend driven by increasing costs and stagnating incomes.

Across Greater Boston, median household income of homeowners increased by a mere 0.9% between 1990 and 2013, when adjusted for inflation, while housing costs increased by 16.5%. The situation is equally as bleak, if not worse, for renters, whose real income declined by 13.2% while rental costs increased by 13%.

In the city of Boston, 20% of households spend half their income or more on housing and Boston's low-income and working class neighborhoods are undergoing rapid price increases. Through the first six months of 2013, home list prices rose by 25% in East Boston, 29% in Dorchester, 35% in Mattapan and 40% in Roxbury.

While the number of homeless individuals and families in Boston is at record levels since the City began its annual homeless census, funding for affordable and public housing remains fragile at best, while the cost to build affordable units has increased by 49% since 2000, according to the Department of Neighborhood Development.

Households Paying 50% or More of Income on Housing 2007 – 2011, 5-yr estimate



Legend: Census tracts with 25% or more households paying 50% or more of income on housing



Source: Metropolitan Area Planning Council

BY THE NUMBERS:

2,561 new units permitted in 2013

3,802 affordable housing units at risk of expiring by 2015

11,000 new dorm beds added since 2000

\$1,234 median monthly rent paid by households in Boston

\$2,400 median list price for new rental units in Boston

Public Safety



Public safety is the peace of mind that results from the effective prevention of and/or response to events that endanger individuals and the general public with physical, emotional or financial harm caused by violent and non-violent crime, domestic and street violence, cyber-security and terrorism. The sector consists of the criminal justice system and law enforcement agencies, as well as first responders, neighborhood crime watch groups, youth- and street-workers, and community- and faith-based organizations.

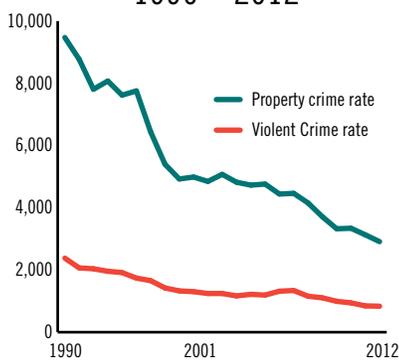
VISION 2030: *Boston's collaborative public/private approach promotes safety at home and on the street through a model of prevention and rehabilitation; every public and private place in Boston—home, school, work, transit—is a haven from violence and environmentally safe; all youth are connected to jobs and their community; quality of life crime has declined and violent crime is virtually nonexistent.*

PROGRESS 2015: *Boston stands as a national model for crime reduction and emergency preparedness and resilience, yet the daily threat of urban violence disproportionately impacts a few neighborhoods and a growing population of disconnected youth.*

The tragic bombing of the 2013 Boston Marathon revealed the full extent of Boston's preparedness and resilience in the face of a large-scale attack. Designated as a Federal Urban Area Security Initiative since 2003, the City of Boston's Homeland Security Funding from the Federal Emergency Management Agency increased to \$17.5 million in 2013—up 60% from the \$10.8 million awarded in 2012.

Boston also continues to be a national model for urban violence prevention more than a decade removed from the Boston Miracle of the 1990's. Between 2000 and 2012, Boston's violent and property crime rates declined by 36% and 40%, respectively, according to FBI Uniform Crime Statistics. A trend that continued in the remaining years with Part 1 crime down 22% year to date through March 2015, according to the Boston Police Department.

**Crime Reported by
Boston Police Department
1990 – 2012**



Source: FBI Uniform Crime Reporting Statistics

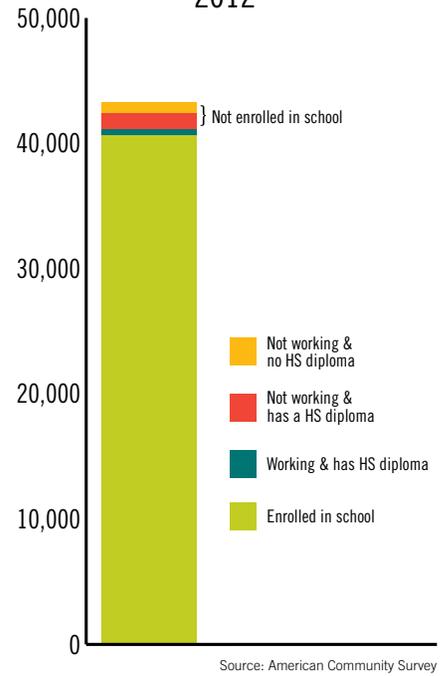
Boston's youth crime rates are also comparatively lower than or equal to the nation's, at 218 property crimes and 170 violent crimes per 100,000, compared to the national averages of 893 and 170, respectively. Also the share of Boston's teens who report carrying a weapon has fallen from 10% in 1993 to less than 4% in 2011.

New advances in technology have augmented opportunities for community engagement, with the city's Citizen Connect application logging more than 58,000 quality of life reports in 2013. The technology supplements traditional community efforts, such as the 364 crime watch groups in existence throughout the city.

Despite the overall decline in crime, the number of citywide shootings has remained consistent at about 300 annually and violence remains highly concentrated in a few key neighborhoods of Boston. Of the 40 homicides recorded from January 1 through December 31, 2013, 25 occurred in districts B-2 and B-3 covering Roxbury and Mattapan. And the total number of homicides increased from 40 in 2013 to 45 in 2014.

Disparities in education and employment opportunity may put some of Boston's youth at risk. While a study by the Measure of America found Boston to have the nation's lowest rate of disconnected youth with just 9% of 16- to 24-year-olds not in school and not working, the rates climb to as high as 16.3% in Mission Hill and Roxbury and 17.6% in East Boston.

**Boston's Youth
Age 16 to 19 years old
2012**



BY THE NUMBERS:

332 Neighborhood Watch Groups as of 2015

38.6% share of 16 to 21 year olds employed in 2012

15.4% of BPS high school students reported carrying a weapon on at least one day in the past month

116,637 emergency medical incidents responded by Boston EMS in 2013

Technology



Technology is the development and use of tools, methods and skills to achieve a goal. New technologies change our relationship to the natural world and to the ways in which we live, work, connect and create. Technological innovation drives such fields as communications, transportation, construction, manufacturing, health care, biotech and robotics, nanotechnology, fossil fuel extraction and renewable energy generation.

VISION 2030: *Technology and innovation remain Boston's key competitive economic edge, attracting and retaining workers, driving development of new industries and providing solutions to the globe's biggest challenges; all children have access to technology for learning; WiFi is universally available; information technology enhances the lives of its residents, who use it to build community, to prepare for good 21st century jobs, and to make informed personal and political choices.*

PROGRESS 2015: *Boston remains a global leader in technology and innovation though emerging challenges in the digital divide and the talent pipeline may threaten our competitive advantage.*

Boston continues to play an outsized role in the nation's and the globe's innovation economy, ranking 4th among 133 cities in the 2014 Innovation Cities Global Index, a comparison using 445 indicators of the innovation economy, and ranked 6th globally among the best places for startups based on company performance, funding, talent, infrastructure and entrepreneurial mindset, according to the Startup Genome 2012 report. Metro Boston ranked 6th nationally in patent filings with an annual average of 3,965 from 2007 to 2011 and ranks 5th nationally in the number of workers in Computer and Mathematical occupations.

The Innovation District has strengthened Boston's brand as an urban innovation incubator, having already attracted 5,000 new jobs in companies ranging from large-scale pharma to small start-ups in emerging industries. According to the District, more than 25% of new companies have 10 or fewer

Computer & Mathematical Occupation Employment, Top US Metro's, 2012



employees and 21% are in creative industries such as green tech, life sciences and design.

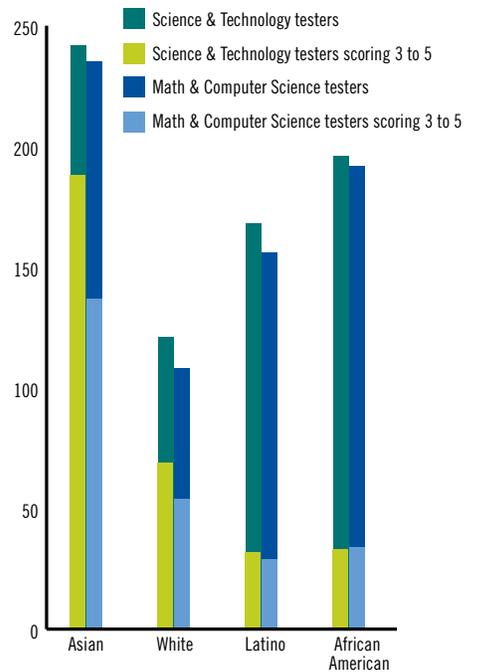
Boston has also emerged as a leader in the field of civic technology. A booming ecosystem—including the Mayor’s Office for New Urban Mechanics, the Code for America Boston brigade and a number of emerging startups—are innovating technology designed to spur civic engagement and community action, improve communities and make government more effective and accessible.

However, a number of indicators signal that the region’s advantage may be at risk. In 2012, Boston lost its longtime position as the East Coast frontrunner on the Startup Genome ranking to New York, to which it briefly ceded first place in venture capital funding as well.

Lagging outcomes and disparities in STEM education threaten Boston’s talent advantage. Just 47% of BPS 10th graders scored Proficient in Science/Technology on the MCAS, compared to 71% statewide. BPS has improved the number of students taking AP STEM—particularly among students of color and girls—but those scoring at a college-ready level are overwhelmingly white, Asian and male.

Though smartphones have substantially narrowed the digital divide, Boston’s tech equity gaps likely mirror those found to be growing nationally by age, income and educational attainment, according to the Pew Research Internet Project.

BPS Advanced Placement Test Takers & Outcomes 2013



Source: Department of Elementary & Secondary Education

BY THE NUMBERS:

170,047 computer sessions logged at the Boston Public Library in Q2 2014

27 Timothy Smith Technology Centers across Boston’s neighborhoods

396 city data sets available on the City of Boston Data Portal

2.9 students per computer in Boston Public Schools

Transportation



Transportation is the multimodal network of cars, roads, bicycles, sidewalks, bridges, waterways, airports, rail lines and passenger busses, subways and trains that drive the region's economy and connectivity, bringing people to work, children to school, and tourists to visit and enabling the export of ideas, goods and services.

VISION 2030: Boston has developed a seamless, affordable, efficient transit system of roadways, subways, zero-emission buses and a T system that

reaches every neighborhood and is connected by the Urban Ring; all residents live and work within a 10 minute walk of public transit; there are more hybrid/low-emission cars than traditional cars in Boston.

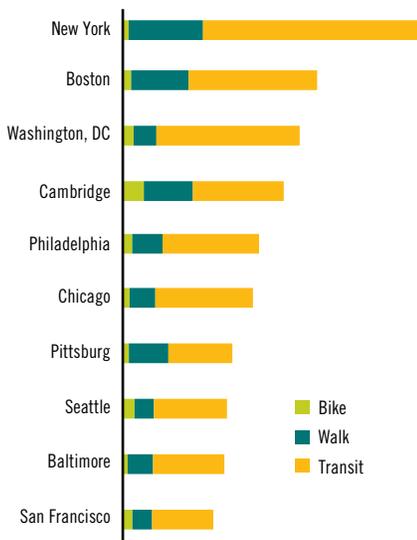
PROGRESS 2015: Boston is moving closer to "car free" viability with major investments in walking, biking and transit, but structural debt, deferred maintenance and fragile funding threaten the ability to provide affordable, equitable service.

Since the completion of the car-centric "Big Dig," Boston has undergone something of a transportation renaissance, investing in an integrated multi-modal transportation system linking public transit to new walking and biking options. The MBTA serves an average of 1.2 to 1.4 million riders on a weekly basis, making it the nation's 4th largest public transit system by ridership. As of 2013 Boston's transportation infrastructure included 61.5 miles of bike lanes and Hubway had logged more than 533,000 trips

Boston ranks 2nd only to New York City in the share of non-car commuters, with 53% of workers walking, biking or riding public transit to work and was named the nation's 3rd best city for public transit and 5th best for biking, according to 2014 WalkScore.

The expansion of the Fairmount Line, the Green Line Extension and the addition of over 90 miles of bike lanes and weekend late night services are providing access to many of the region's most transit-dependent neighborhoods and bolstering Boston's brand as a 24-hour city.

Top US Cities for Non-Car Commuters Percent Walking, Biking, Using Transit 2013



Source: WalkScore

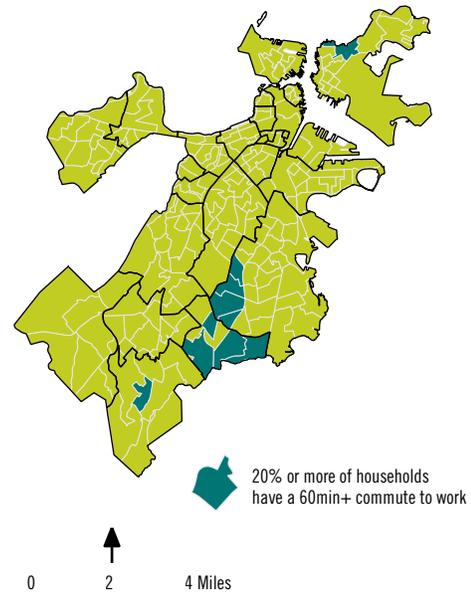
Improved transit options and expansion of innovative rideshare models like Zipcar, Uber and Lyft enable more residents to go car-free. While Boston's population increased by roughly 30,000 between 2008 and 2013, the number of registered cars declined by about 50,000.

Despite the broad expanse of Boston's public transit system, fundamental challenges persist, particularly in the areas of equity, maintenance and funding. Workers in Roxbury, Dorchester and Mattapan remain disproportionately dependent on bus travel and as many as 20% of workers spend 60 minutes or more commuting to work—double the city-wide average commute time.

Increased ridership has also pushed the aging MBTA system to its brink, with 20% of all T vehicles beyond their useful life, according to research by Northeastern University's Dukakis Center for Urban & Regional Planning.

Compounding the increased demand and decaying supply is the system's fragile fiscal health, the consequences of which were exposed following the catastrophic snowfall during winter 2015. While in 2009 budget estimates to update the MBTA to a "state of good repair" totaled \$3.1 billion, as of late 2015 the total cost of updating the T's tracks, trains, stations and other infrastructure more than doubled to an estimated \$7.3 billion.

Hour-Long Commute Times in Boston 2008 – 2012, 5-yr estimate



Source: American Community Survey

BY THE NUMBERS:

466,000 households located within ½ mile of an MBTA station

28.7 minutes average travel time to work

44% of BPS students live within their school's walk zone

10,244 vehicle miles traveled per Boston household

About the Boston Indicators Project

The Boston Indicators Project is an initiative of the Boston Foundation that offers new ways to understand Boston and its neighborhoods in a regional, national and global context. The Project aims to democratize access to data and information, foster informed public discourse, track progress on shared civic goals and report on change in 10 sectors: Civic Vitality, Cultural Life & the Arts, Economy, Education, Energy & Environment, Health, Housing, Public Safety, Technology, and Transportation.

Through the Boston Indicators Project website, visitors can track change and progress on more than 150 indicators through cutting-edge, interactive visualizations and access the data behind these visualizations.

Every two years, a major report is published that focuses on the full array of Boston's accomplishments and the challenges based on data, reviews of recent research and input from expert and community stakeholder convenings. The Project also produces special reports on critical topics, such as poverty and education.

- 2000** *The Wisdom of Our Choices: Progress, Change and Sustainability*—Provides baseline data for the height of Boston's high-tech boom, and warns of the regional knowledge economy's disparate effect on more- and less-well educated Boston residents.
- 2002** *Creativity and Innovation: A Bridge to the Future*—Emphasizes post-recession Boston's creative economy assets and the challenge of talent retention in a high-cost city and region.
- 2004** *Thinking Globally/Acting Locally: A Regional Wake Up Call*—Notes intensifying global competition for talent and jobs and the need for a coherent response.
- 2006** *A Time Like No Other: Charting the Course of the Next Revolution*—Details Boston's outsized historic and current role in the world and seven crisis/opportunity pairs that, together, reframe Boston's challenges as the foundation for future growth.
- 2008** *Boston's Education Pipeline: A Report Card*—A comprehensive view of the entire arc of Boston's system of educational opportunities and outcomes.
- 2009** *A Great Reckoning: Healing a Growing Divide*—Highlights rising income inequality in Boston and the region and its harmful effects.
- 2011** *The Measure of Poverty*—A short report on poverty in Boston over the last two decades and today.
- 2012** *City of Ideas: Reinventing Boston's Innovation Economy*—Shows that standard economic indicators don't tell us everything we need to know about equity and prosperity in Boston's post-recession innovation economy.
- 2014** *Taking Stock: Five Years of Structural Change in Boston's Public Schools*—A snapshot of changes in Boston's K-12 public education landscape after five years of reform showing the growth of autonomous schools and the impact on student learning and achievement.

The Boston Indicators Project also collaborates with the Metropolitan Area Planning Council on the MetroBoston DataCommon, an interactive data portal and mapping tool that is a resource for all those seeking to better understand how the region and its communities are changing, and help residents, planners, city and town officials, educators, and journalists explore options and make informed decisions through data.

For more information, visit: bostonindicators.org



The Boston Indicators Project
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