



December 11, 2015

Race to Equity: The State of Black Massachusetts

By Nicole Rodriguez, Colin Jones, Mary Tittmann, and Nancy Wagman

A report commissioned by the Urban League of Eastern Massachusetts

Our Commonwealth does best when everyone has the ability to reach their full potential and contribute to our society and economy. For our state to prosper, we all need jobs with decent pay, good public schools, safe and affordable housing, healthy places to live, and reliable transportation among other essentials. Yet these essentials are often not available to many people, particularly those who live in low-income communities and communities of color. This reduces their opportunities to thrive. Massachusetts, one of the wealthiest states in the nation, has the ability to build an economy in which everyone can participate fully.

Our Commonwealth has taken some important steps to improve people's lives. Because of public investments, Massachusetts' students are at or close to the top in most academic measures. A greater percentage of people in the Commonwealth have health insurance than anywhere else in the U.S. The Commonwealth increased the minimum wage and boosted the state's contribution to the Earned Income Tax Credit to increase after-tax incomes for low-wage workers. Most workers in Massachusetts also have access to earned paid sick time so they can care for themselves or their families without the risk of losing income or their jobs. But there is much more we can do to make sure that everyone in Massachusetts regardless of their race, ethnicity, or neighborhood, has a chance to lead healthy and successful lives.

This report presents a snapshot of how Black communities and other communities of color in Massachusetts are faring in terms of education, economic opportunity, and health.

Massachusetts, like the nation, is growing more diverse. We will be stronger as an economy and society if our state policies help all of our people reach their full potential – no matter their race, ethnicity, sex or income.

STATE OF BLACK MASSACHUSETTS: ISSUES IN EDUCATION

Education plays a vital role for an individual's success in life – and in creating a strong economy that benefits from the full potential of every member of the community. It provides knowledge and skills needed to participate and contribute effectively in society and in the economy. Massachusetts boasts the most highly educated workforce in the country. Yet, still 40 percent of our kids are proficient in reading by third grade, a critical benchmark for success in school and beyond.¹ Also, more than half of our kids don't earn a college degree, an important driver to economic mobility.² And we know that investments in education pave the road for success later in life. There are concrete policy actions that give kids the supports they need to thrive. These actions include increasing the availability and quality of early education and care, boosting quality education and wrap around supports for kids in grade and high schools, and expanding opportunities for all kids to pursue higher education. With the right policies in place, we can build a strong economy where all kids – including kids in lower- income communities, which have higher rates of Black and Latino/Hispanic children – receive the quality education and supports they need to thrive.

Early Education and Care

Quality early education and care sets up kids, families, and communities for success in the future. These programs lead to improved social and academic achievement, as well as better health for kids.³ They are also an essential resource for parents, giving them the support they need to seek and keep jobs and provide for their families.⁴ And these working parents in turn contribute to their communities, leading to a strong state economy. Yet, because of cuts to state funding in Massachusetts, many low-income kids, including many kids of color, are not currently in publically-supported early education programs.⁵ For those kids who can, quality is not always up to the level it needs to be because of low-reimbursement rates, which mean that care providers can't pay salaries that would attract and retain well-trained teachers.

There is an extensive body of research showing that quality early education leads to long-term educational and socio-emotional gains. A study in Boston on the impacts of pre-kindergarten found large positive effects on language, literacy, and math skills for kids.⁶ Success of this program is mainly attributed to the use of explicit and intentional curricula as well as a coaching system for teachers that include support and professional development.⁷ Boston pre-kindergarten provides full school day supports to Boston kids without any income limits on enrollment. The program reflects the makeup of Boston schools, which consist of predominately Black, Hispanic, and half low-income kids.⁸

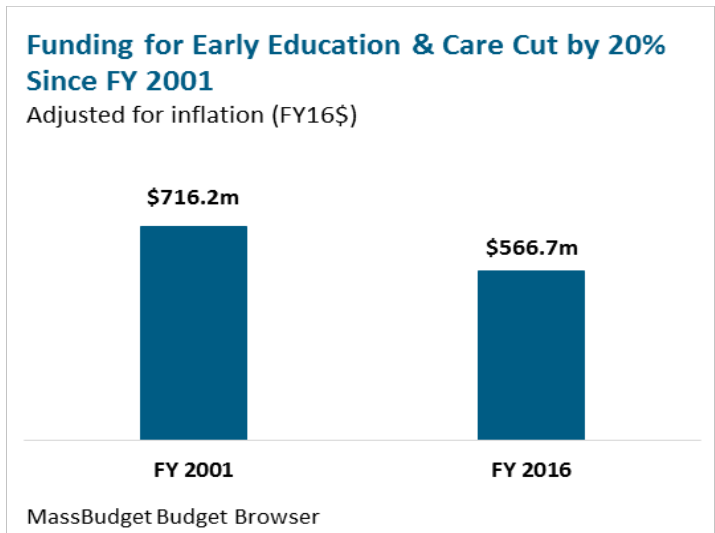
But this was not just a Boston experience. One of the best examples is the 1960s High/Scope Perry Preschool Project that found that kids who participated, all of whom were black, living in a low-income district in Michigan, did significantly better throughout school and adulthood than kids who did not participate in early education and care.⁹ These kids were more likely to graduate from high school, have higher earnings, and own a home. They were also less likely to need special education and public assistance.¹⁰ In fact, the study found that these economic gains produced a return on their costs of 7 to 10 percent per year.¹¹

More recently, New Jersey initiated a high-quality preschool education program in the state’s highest poverty districts. The state fully funds early education for all 3- and 4-year-olds attending public schools, Head Start programs, or private centers. Kids in these programs on average experience broad gains in skills and knowledge, and reduced special education placement and grade retention.¹² The state now funds and serves about 80 percent of preschool-aged children in those districts.¹³

Not all preschool programs have produced the same positive gains for kids though. A 2010 study of the Head Start program found that the majority of the gains from the program did not last past 1st grade.¹⁴ And in Tennessee, a Vanderbilt University study found similar results for students as they progressed towards 3rd grade, losing the advantage to kids who did not attend a program in the study.¹⁵ One possible reason for these outcomes is that many kids in the control groups for these studies still went to preschool. In the Head Start evaluation, over 60 percent of the control group children went to another pre-kindergarten program, just not a Head Start program.¹⁶

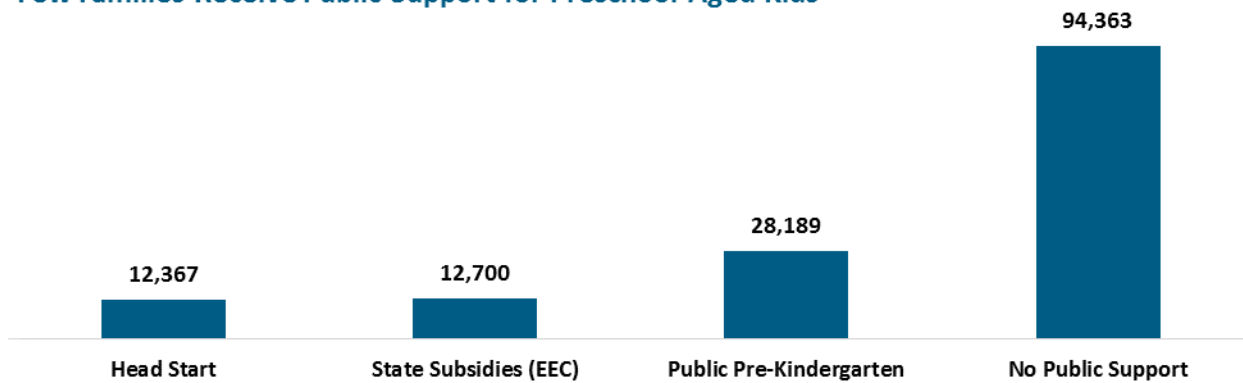
Access

Increasing access to preschool for all children is one important goal in early education and care. One way toward this goal is making sure that there are sufficient public investments for these programs. Investments in early education help kids prepare for school and future success, especially low-income kids and kids of color. Unfortunately, Massachusetts has cut funding to early education and care programs by about 20 percent over the past 15 years, leaving many kids without support.¹⁷ As of June 2015, nearly 7,600 preschool kids were waiting for subsidized early education and care.¹⁸



Statewide, only 36 percent of 3- and 4-year olds receive public support from Head Start, public pre-kindergarten, or a subsidy from the Massachusetts Department of Early Education and Care (EEC), which helps low-income families place their children with private centers or licensed family providers.¹⁹ The remaining low-income families must rely on private scholarships, pay full price, or forego early education and care entirely.²⁰

Few Families Receive Public Support for Preschool-Aged Kids



FY 2014 Head Start Enrollment Data

FY 2014 state subsidy data, Department of Early Education and Care

FY 2014 pre-kindergarten enrollment, Department of Elementary & Secondary Education

U.S. Census Bureau, 2011-2013 American Community Survey used to determine number of kids not receiving any public support.

1 in 3 Kids Below 200% of Poverty Don't Receive Public Support for Early Education

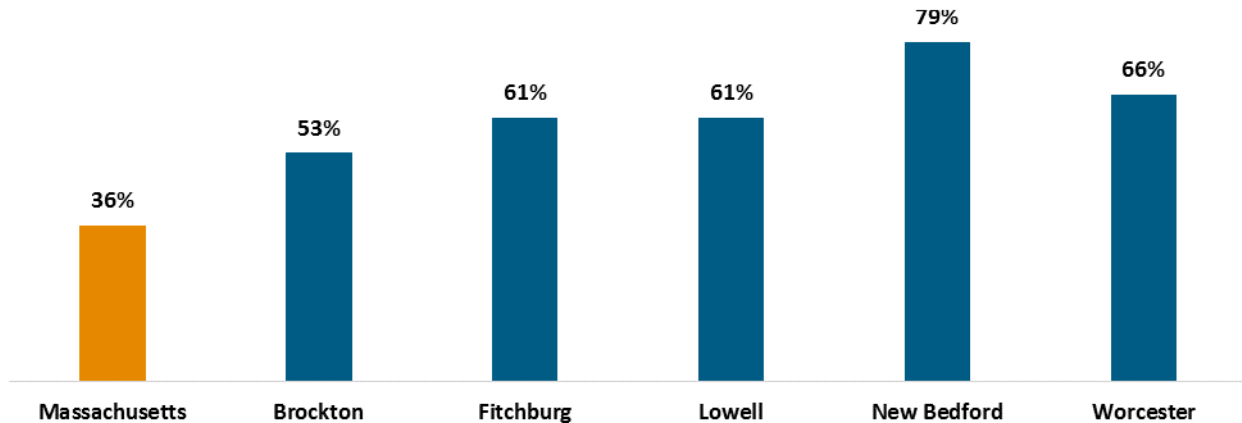


And even with subsidies targeted to low-income kids – who benefit the most from a subsidy to early education and care – nearly a third don't receive any public support.²¹ These kids, who are more likely to be Black or Latino/Hispanic, are often the furthest away from opportunity.²²

Data from a few of our Gateway cities illustrates this problem. Gateway cities are mid-sized cities that have incomes and rates of higher education attainment that are below the state's average.²³ These cities are lower-income, less resourced, and have higher rates of families of color.²⁴ As the chart below shows, kids in these cities are more likely to receive public support for attending an early education program than all kids statewide.¹ For instance, in the cities highlighted below, public support for early education in care ranges from 53 to 79 percent, as compared to the state average of 36 percent. Public support is higher in these communities specifically because subsidies are targeted to low-income kids. Still, this support is far from universal. For instance, Worcester's rate of 66 percent receiving public support means that roughly one-third of their 3 and 4 year olds still receive no support at all.

¹ These particular Gateway cities were chosen due to data available from EEC.

Percent of Gateway City Kids with Public Support



FY 2014 Head Start Enrollment Data
 FY 2014 state subsidy data, Department of Early Education and Care
 FY 2014 pre-kindergarten enrollment, Department of Elementary & Secondary Education
 U.S. Census Bureau, 2011-2013 American Community Survey used to determine number of kids not receiving any public support.

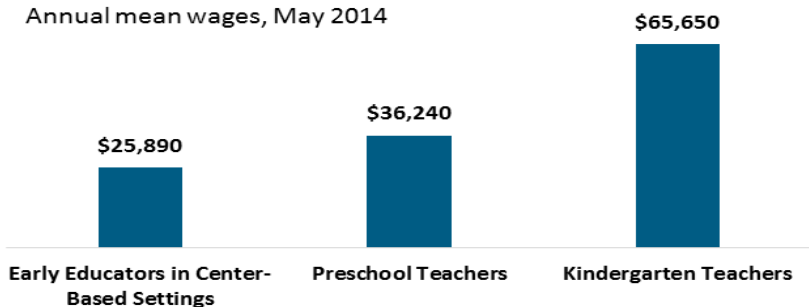
Quality

While enrolling kids in affordable early education programs is important, it is also critical to ensure that these programs are of high quality. Many variables contribute to high quality, and one of the most important is the education and training of the teachers leading the classroom.²⁵ In Massachusetts, preschool teachers and early educators in center-based settings earn 40 to 55 percent less than kindergarten teachers.²⁶ These low wages make it difficult to attract the best teachers and contribute to high turnover, which averages 25 to 40 percent annually.²⁷

The money for salaries mainly comes from rates charged to families or subsidized payments by the state. When the state reimburses providers below market rates, it can be difficult for providers to recruit and retain highly-trained teachers. Reimbursement rates paid to early education and care providers from the state are well below market rates and federal recommendations.²⁸

In MA, Early Educators & Preschool Teachers Earn Nearly 50% Less Than Kindergarten Teachers

Annual mean wages, May 2014



U.S. Bureau of Labor Statistics, May 2014 State Occupational Employment and Wage Estimates Massachusetts

Thriving kids contribute towards shared prosperity and pave the way for a bright future. But even though we know how meaningful early education can be for these kids, we have been funding at levels that lead to long wait lists and make it difficult to be able to attract and retain highly trained teachers. Massachusetts’ education system is one of the best in the country,²⁹ but gaps persist for low-income students and students of color. These gaps would decrease with greater availability of high-quality early education.

K-12 Education

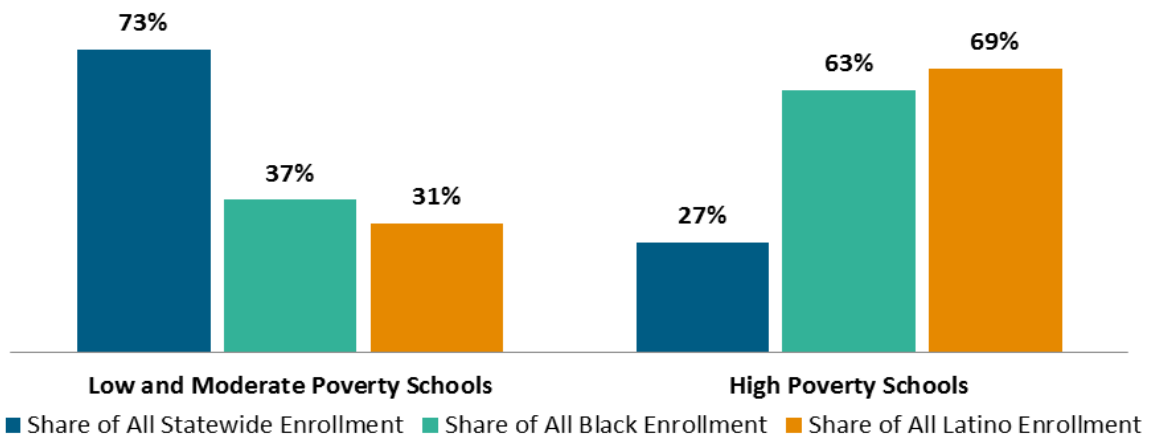
All students in the Commonwealth should receive the support they need, from early education through high school, to enable them to become well-rounded learners and engaged citizens. If we provide this support effectively, more of our young people will be able to provide for their families and contribute to their communities. Key academic supports include instruction from highly qualified teachers, health and wellness services, career exploration, and engagement with a wide range of enrichment activities including athletics and the arts.

Unfortunately, these opportunities are much less abundant in under-resourced schools across the state. In many cases, this is driven by the fact that lower-wealth communities are less able to raise revenue through the local property tax. Communities with less property tax revenue to support their schools often have larger class sizes, fewer electives, and less common planning time for educators.³⁰ Even though the lowest-income communities receive more state aid, they tend to have less total funding to invest in their schools than our most affluent communities.³¹

Because they are disproportionately concentrated in lower-income school systems, students of color in Massachusetts are particularly affected by this lack of resources and academic supports (for the purposes of this K-12 Education section, “low-income” refers to students qualifying for free or reduced-price school meals). While predominately low-income urban districts serve roughly a quarter of all students in the state, they have an outsized share of Black and Latino youth (see chart below).³² Conversely, the other schools in the state tend to serve more affluent students and have roughly half the population of Black and Latino youth than they would have if these groups were distributed proportionately.

Youth of Color Disproportionately Attend High Poverty Districts

Percentage of all students and Black and Latino students in MA attending school districts where 60 percent or more students are in poverty and districts where under 60 percent are in poverty, 2013-2014



Massachusetts Department of Elementary and Secondary Education

A handful of communities have particularly high populations of low-income students and youth of color. The 15 largest school districts in the state are home to less than a quarter of the state's pupils, but 53 percent of Black and Hispanic/Latino youth.³³ Located in Greater Boston and several of the largest Gateway cities, 72 percent of the students in these large districts are low-income, about twice the state average.³⁴

Across the nation, high-poverty schools like these tend to have less experienced teachers, less rigorous curriculum, inadequate facilities and materials, higher rates of staff turnover and student disengagement.³⁵ This is also the case in Massachusetts. Students in our highest-poverty schools are more than twice as likely to be taught by first-year teachers as those in low-poverty schools.³⁶ Students with first-year teachers generally gain less ground academically.³⁷ And unfortunately, the least experienced teachers are also more likely to be placed with students who are academically behind from the outset.³⁸ Not surprisingly, there are greater rates of turnover among new teachers in high-poverty schools. Even experienced teachers leave high-poverty schools more quickly than those serving students that are more affluent.³⁹

While low-income districts in Massachusetts—like those in the rest of the country—don't have the level of resources of the most affluent districts, our school funding system does provide greater resources to low-income districts than such districts receive in most of the county.⁴⁰ As we see below, the quality of education in our low-income districts appears to be higher than in most other states.

The concentration of low-income kids and kids of color in a small number of high-poverty districts is partly the result of past policy choices that denied many people of color the opportunity to create and build wealth. This prevented many residents of color from moving to areas with better schools or obtaining the resources to improve educational offerings in their communities (for more detail, please see the Wealth part in the Economy section). The impact of these past policies continues to reverberate today given the link between income and property wealth and the resources available in schools.

Challenges and Successes in Boosting Achievement for Youth of Color

All kids in high-poverty schools face barriers to reaching academic proficiency compared to those in upper-income schools.⁴¹ For instance, proficiency rates in math and English are lower in schools that are 60 percent low-income or greater relative to schools below that threshold.⁴²





Given their concentration in low-income schools, Black youth are not consistently provided the support necessary to reach key developmental points in literacy and mathematics that are connected to long-term academic and life success. Only 40 percent of all Black third graders statewide were proficient or advanced in reading in 2015.⁴³ This figure is a 4 percent increase from the 36 percent rate in 2006.⁴⁴ Early literacy can be improved through access to pre-kindergarten programs (for more detail, please see the Early Education part of the Education section). Similarly, recent progress on the 8th grade math scores has been significant. While only 36 percent of all Black 8th graders were at least proficient in math in 2015, this was a marked increase from only 17 percent who attained this proficiency in 2006.⁴⁵ Success in rigorous math coursework in high school predicts later success in higher education.⁴⁶

While the results for low-income students and students of color in Massachusetts are not what we would like them to be, we lead the nation on many measures of school performance. This is borne out in reading and math scores from the 2015 National Assessment of Educational Progress (NAEP), which allows us to compare performance across states. As a whole, Massachusetts ranked near the top





nationally on every NAEP measure.⁴⁷ Fortunately, these positive results are not limited to middle and upper-income students. Our state also attained top rankings for low-income students, and was in the top 10 for the performance of Black students compared to Black students in other states.⁴⁸ However, Massachusetts performed worse than many states in supporting the achievement of Hispanic/Latino students (see charts below).

Massachusetts Student Performance on the 2015 NAEP

8th Grade Math, Massachusetts National Rankings by Race and by Income Level




White Students	Black Students	Hispanic/Latino Students	Low-Income Students
			

8th Grade Reading, Massachusetts National Rankings by Race and by Income Level

White Students	Black Students	Hispanic/Latino Students	Low-Income Students
			

Further analyzing the 2015 NAEP results for low-income students also shows clear signs of success. For example, low-income Black 8th graders in Massachusetts scored higher than this group did in any other state in math and ranked second nationally in reading.⁴⁹ However, there were some significant differences for Hispanic/Latino students (see charts below). While low-income students in Massachusetts generally attained top national rankings, our state scores for low-income Hispanic/Latino students were close to the bottom nationally on reading.

8th Grade Math, Massachusetts National Rankings For Low-Income Students by Race

Low-Income White Students	Low-Income Black Students	Low-Income Hispanic/Latino Students
		

8th Grade Reading, Massachusetts National Rankings For Low-Income Students by Race

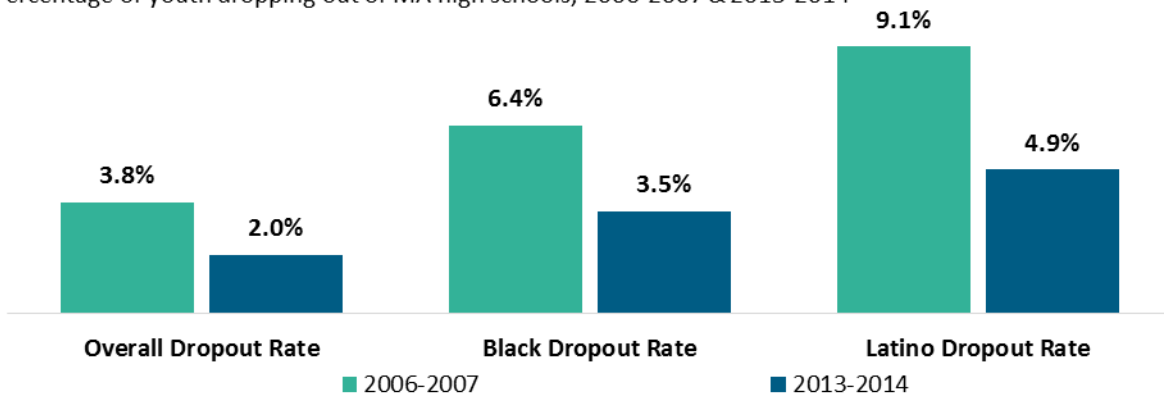
Low-Income White Students	Low-Income Black Students	Low-Income Hispanic/Latino Students
1 st	2 nd	38 th

Despite the fact that they outperform peers in other states, Black students in Massachusetts scored 12 percent lower than White students in 8th grade math. Hispanic and Latino students scored 11 percent lower than White students.⁵⁰ Low-income students also performed 10 percent lower than their more affluent peers. The differences based on race and income in 2015 were essentially unchanged from the levels identified in NAEP results from 1998 and 2000.⁵¹

Despite persistent challenges, Black and Hispanic/Latino youth have made recent progress in other areas. Between 2007 and 2014, the statewide dropout rate for Black youth was cut almost in half (see chart below).⁵² Latino youth had a similar decrease, although their dropout rate remains the highest among all racial groups in Massachusetts.⁵³

Dropout Rates Declined Across Massachusetts Since 2006

Percentage of youth dropping out of MA high schools, 2006-2007 & 2013-2014



Department of Elementary and Secondary Education Dropout Report 2006-2007 & 2013-2014

Graduation gains were driven in part by an increasing focus on dropout prevention across the Commonwealth. In Boston, for example, the Youth Transitions Task Force, a coalition of government agencies, educators, community organizations, and business groups worked to cut the dropout rate by more than half in a decade.⁵⁴ Tactics undertaken by the task force included creating early interventions for off-track youth, increasing coordination between agencies, and opening reengagement centers that provided an array of resources for teens.⁵⁵

Options to Enhance Social and Academic Services in Schools

Fortunately, education programs exist that more effectively serves disadvantaged students, enabling them to attain their full potential. For instance, a range of programs in Massachusetts and nationally

address social barriers to learning that disproportionately harm low-income students and students of color. These programs, known as wraparound services, can help students more fully benefit from their education.

Wraparound services bring together health clinics, mental health services, prevention and wellness programs, and family resource centers to engage and support parents.⁵⁶ Each of these elements requires sufficient staffing, oversight, facilities, and partnerships with service providers. To date, comprehensive wraparound services are not available to all students who would most benefit. In the absence of other funding sources, it is difficult for communities to afford the costs of sustaining or expanding these programs, particularly after related federal grants have expired.⁵⁷

Prominent initiatives featuring wraparound services that have also been successful include the Harlem Children Zone and the Children's Aid Society Community Schools in New York City.⁵⁸ Massachusetts has also created more robust systems of support, called "wraparound zones" in several cities including Holyoke, Lynn, Springfield, and Worcester. These efforts have helped improve academic performance, with particular benefits for younger students and English language learners.⁵⁹ Schools within the wraparound zone program were 65 percent more likely to exit the state's underperforming status compared to struggling schools without the program.⁶⁰ One example is Springfield's Alfred G. Zanetti school, which used a wraparound zone grant along with several other turnaround strategies to go from underperforming to the state's top performance level.⁶¹ In cases like the Zanetti School in Springfield, social supports work in tandem with strong academics, creating an engaging, rigorous, and broad educational experience for youth.

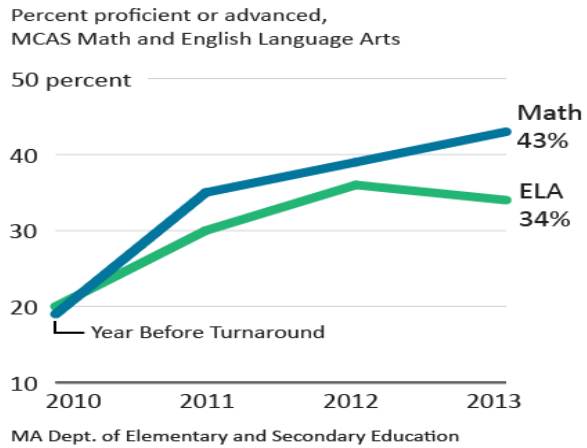
Additionally, education policy leaders are beginning to question whether the traditional model of a roughly nine-month school year with around six hours of classes each day is robust enough to address the interrelated challenges of concentrated poverty that face urban youth of color.⁶² This growing sentiment raises the importance of increasing the learning time available to students to create an education system capable of uplifting all children. Studies have found that as much as two-thirds of achievement gaps between disadvantaged youth and more affluent peers are driven by differences in out-of-school time, particularly during the summer.⁶³ Over the summer, many high-income youth gain experiences and skills through enrichment their families have the capability to provide, while low-income youth are less likely to receive this support.

Schools and partner organizations have increased learning time for youth through summer, after-school, and longer school days. Successful examples have helped young people build self-confidence, develop relationships with caring adult mentors, get career experiences, and boost their academic performance.⁶⁴ However, for these initiatives to succeed it takes professional development for educators, engaging enrichment opportunities for kids, and academic support in areas where kids are struggling.

Boston's Orchard Gardens Pilot School is one strong local example of a quality extended day program. Orchard Gardens, which serves 95 percent students of color and 86 percent low-income kids, was one of the lowest performing schools in the Commonwealth before a turnaround over the past several years.⁶⁵ Orchard Gardens extended the school day by roughly three hours, allowing enhanced professional development, improved instructional practices, and partnerships with community organizations.⁶⁶ The school achieved rapid growth in academic performance (see chart below).⁶⁷ Their improvement exceeded 87 percent of schools across the state in English and 98 percent in math.⁶⁸

In the case of Orchard Gardens, like other extended time programs, sustained resources are necessary for lasting positive results. To promote the turnaround, Orchard Gardens depended on an infusion of funding, including federal grants covering roughly half the costs, which expired after three years.⁶⁹ This situation left the partner organizations and Boston Public Schools scrambling to assemble sufficient funding.⁷⁰ Without additional resources, it unlikely that more students across our state who could most benefit can be served through programs like those at Orchard Gardens.

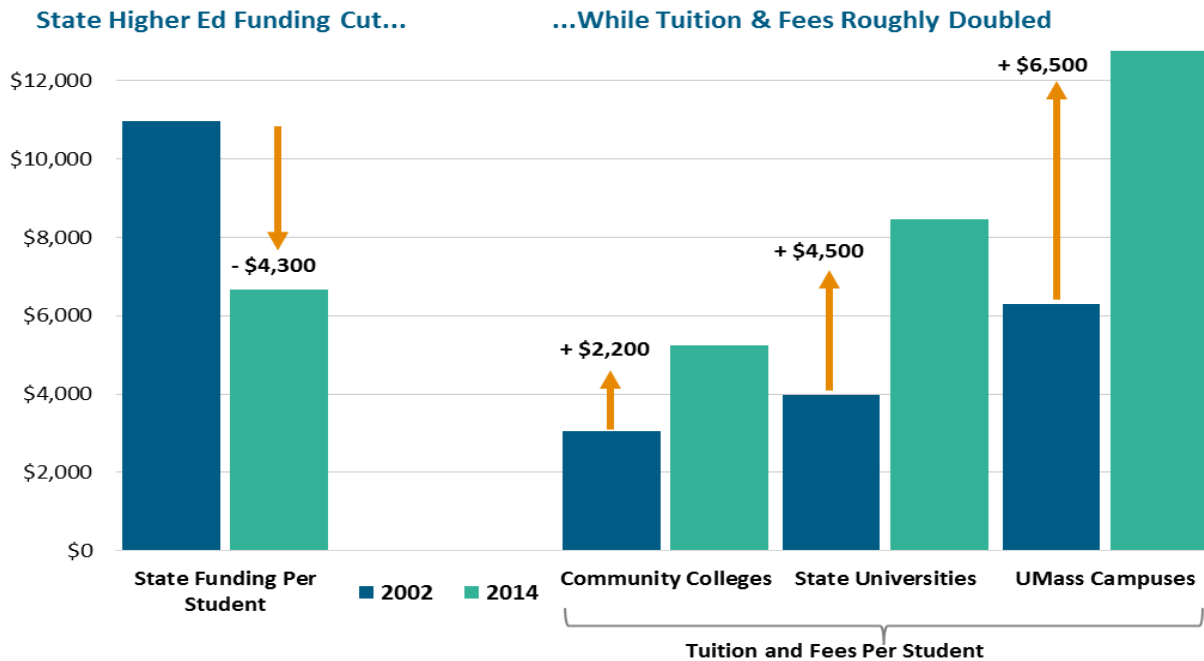
Longer School Days Supported Academic Gains at Orchard Gardens



Higher Education

Earning a college degree provides a wide range of opportunities including improved job prospects, greater quality of life, and higher earnings.⁷¹ Beyond the individual benefits, the Massachusetts economy as a whole stands to gain from increasing the skills of our state workforce.

Despite the fact that the strength of our knowledge-driven economy depends in large part on the skills of our workforce, Massachusetts has cut higher education support in recent years. Between 2002 and 2014, state spending on higher education declined by \$249 million, or 18 percent.⁷² This decline is more dramatic considering that enrollment increased by over 40,000 students during the same period.⁷³ During these years, the cost of obtaining a college degree at public institutions has significantly increased (see chart below).



State appropriations and resident tuition and fees, inflation adjusted
 Department of Higher Education, UMass President's Office, MassBudget Budget Browser

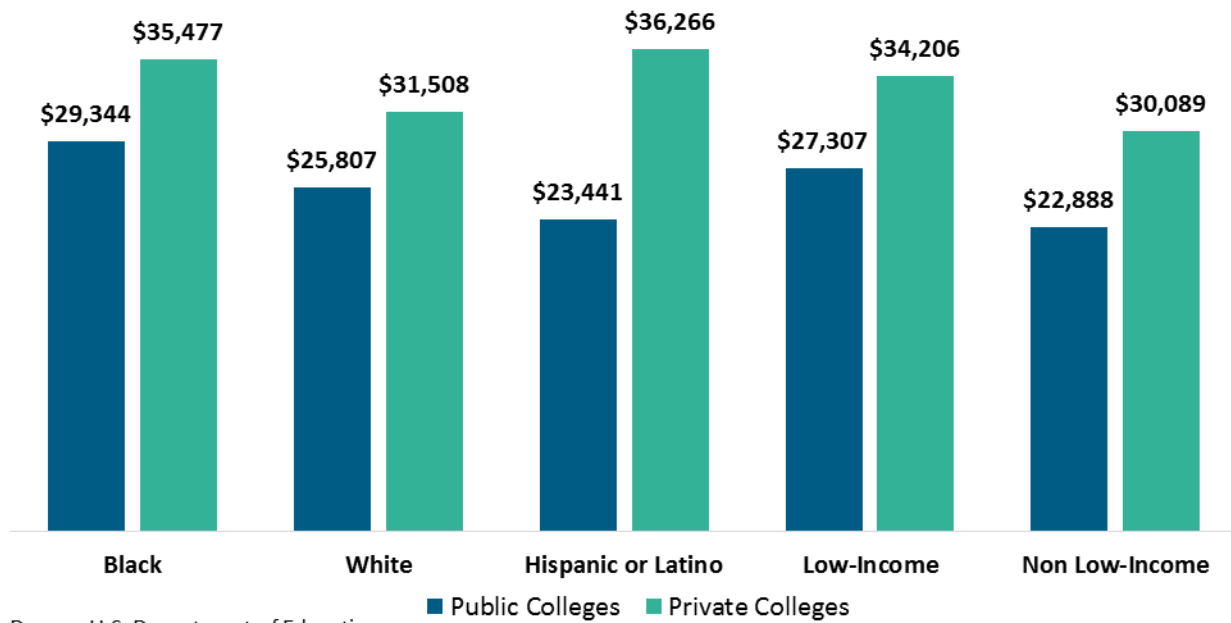
State cuts to public higher education are a leading cause of the rise in tuition and fees, which in turn lead to increased student debt.⁷⁴ Students who took loans to attend four-year public colleges in Massachusetts incurred an average of \$25,500 in debt in 2010.⁷⁵ This is almost double the levels from 2000, which was \$13,798 per student.⁷⁶

A vast majority – roughly 75 percent – of public higher education students in our state in 2013 took on debt to cover their expenses.⁷⁷ Excessive debt can limit graduates’ ability to save and diverts resources that might otherwise flow more freely into the state economy. Most importantly, it can also discourage college attendance in the first place and make it harder to proceed successfully to a degree.

The rising cost of college is a particular challenge for Black families who are less likely to have accumulated family wealth to help their children pay for higher education. Past policy choices prevented many Black people from purchasing homes at market rates and in desirable neighborhoods, which is often how families have accumulated wealth for themselves and future generations (for more detail, please see the Wealth part of the Economy section). Across the country, students of color take on more burdensome student loan debt on average (see chart below).⁷⁸

Students of Color and Low-Income Students Borrow More for Bachelor's Degrees

Average student loan debt for bachelor's degree recipients, by race and income (Pell Grant eligibility), 2012



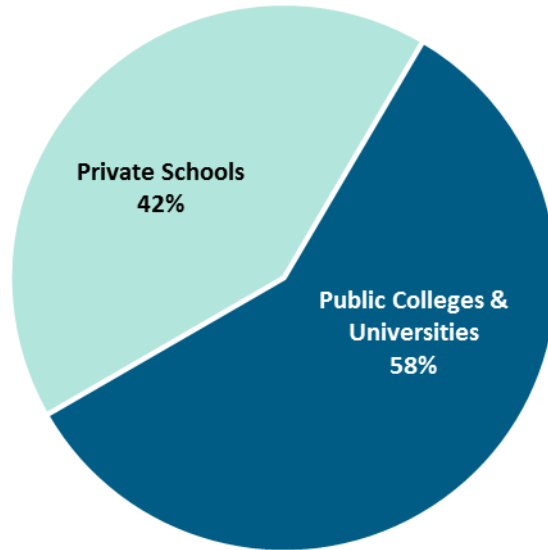
Where Are Black Students Attending Higher Education in Massachusetts?

There are various other reasons why efforts to address the affordability and quality of public higher education are particularly relevant to communities of color. Black students in Massachusetts, for instance, are more likely to attend public colleges. Of the roughly 35,000 Black undergraduates in Massachusetts in 2013, over 20,000 attended community colleges, state universities, and the University of Massachusetts (UMass).⁷⁹

The share of Black students attending public rather than private higher education is 8 percentage points higher than for all students (58 percent compared to 50 percent).⁸⁰ The figures for both the number of Black students as well as the share attending public institutions have risen slightly in recent years.⁸¹

The Majority of Black College Students Attend Public Higher Education

Percentage of MA Black undergraduates enrolled in different college types, 2013

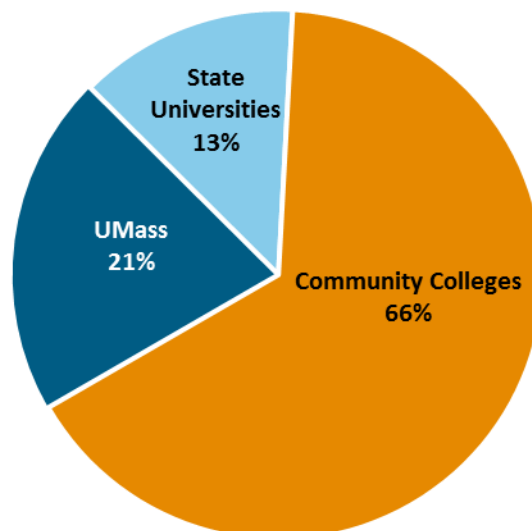


National Center for Education Statistics, IPEDS Database

Within public higher education, a majority of Black students attend community colleges, followed by smaller numbers at UMass and the state universities. In 2013, roughly 13,400 Black students attended community colleges, 4,300 attended the UMass campuses, and 2,700 attended state universities.⁸²

Two-Thirds of Black College Students in Public Schools Attend Community Colleges

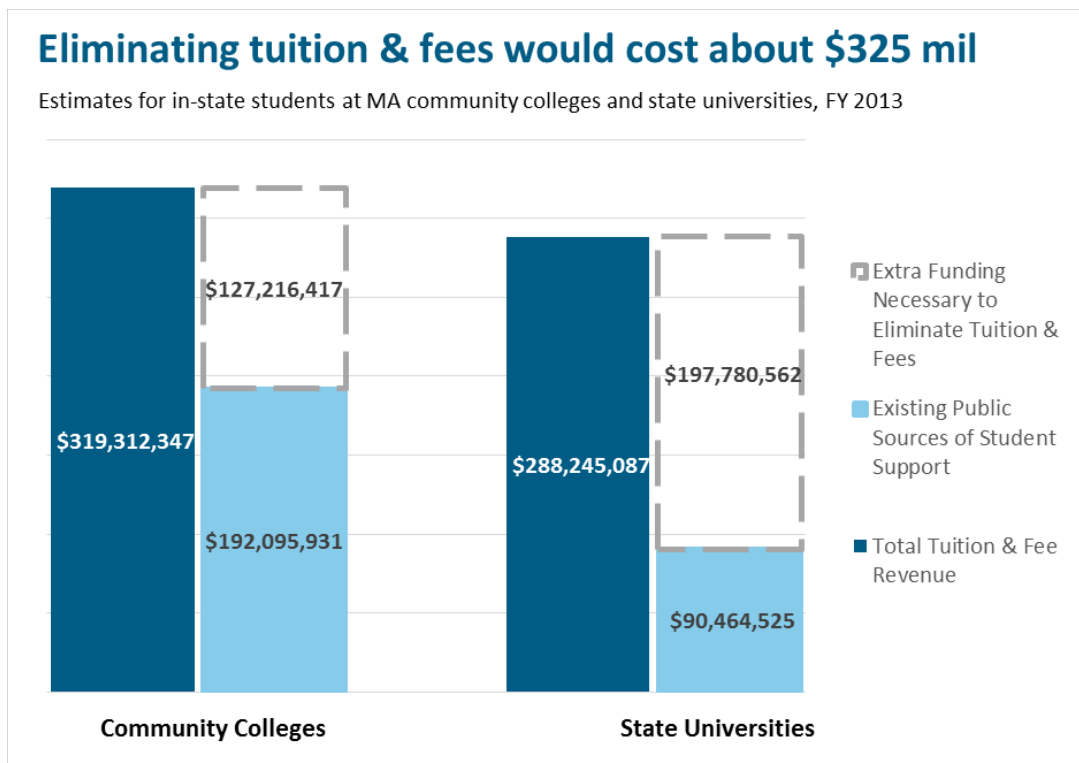
Percentage of Black undergraduates enrolled in MA public higher education, by sector, 2013



A Pathway to Affordability – Proposals for Debt-Free Public Higher Education

States, as diverse as Oregon and Tennessee, have taken a proactive approach to broadening access to public higher education by offering free or greatly reduced tuition and fees, particularly at community colleges.⁸³ These states have embraced President Obama’s call to “make two years of college as free and universal as high school.”⁸⁴

Providing free public higher education would require significant new revenue to fill the gap between current sources of student support, such as state and federal scholarships (e.g. Pell Grants), and total tuition and fees for Massachusetts residents. Taking this approach, MassBudget estimates that making community colleges and state universities debt-free for all resident students would cost roughly \$325 million (see chart below.) Additionally, making the University of Massachusetts campuses debt-free for all resident students would cost the state \$306 million.⁸⁵ Even though this type of state support would be a very significant boost for most students, they would still have to cover the cost of books, housing, food, and other living expenses. (For more detail on options for debt-free public higher education in Massachusetts, see MassBudget’s paper [Debt Free Higher Education: What Would it Take?](#))

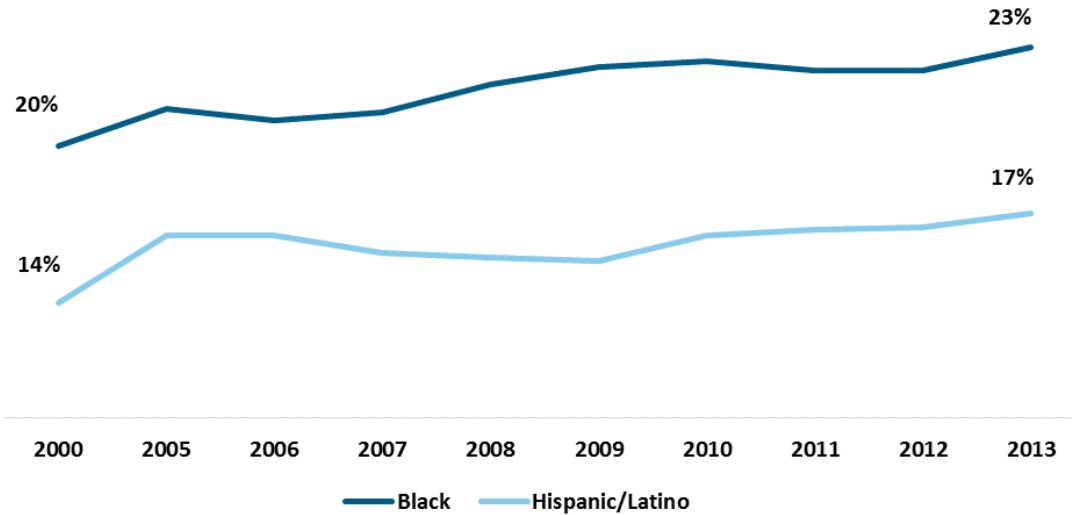


Access with Quality – Raising Achievement in Public Higher Education

Students of color have made positive steps in higher education and the Commonwealth has also pursued some promising initiatives. As it stands, Black, and Hispanic/Latino adults have earned college diplomas at higher rates since 2000 (see chart below).⁸⁶

Black, Hispanic/Latino College Attainment Has Risen Since 2000

Percentage of MA adults with bachelor’s degree or higher, by race, 2000-2013



U.S. Census Bureau, 2000 Census, American Community Survey, 3-Year Estimates 2005-2013

Given that more college students of color attend public campuses, it is important to ensure that these institutions are well structured to support their success. It is clear that challenges remain towards reaching this goal. Across public higher education, Black and Hispanic/Latino students are less likely to graduate on time.⁸⁷ At community colleges, this is a challenge for all students, as only 16 percent of all students obtain community college degrees within three years.⁸⁸ However, results at community colleges greatly improve when using a broader six-year success indicator that includes obtaining a work credential, transitioning into four-year schools, as well as earning a two-year degree.⁸⁹ Using this measure, success rates at community colleges increase to 47 percent for all students, 46 percent for Black students, and 39 percent for Hispanic and Latino students.⁹⁰

In its recently adopted Vision Project, the state Department of Higher Education has outlined a strategic plan for improving academic and social supports at our public campuses. This plan has suggested a range of options to improve success in higher education.⁹¹ It has called for more alignment with workforce needs and outlined other steps to maximize the career and life success prospects of graduates, particularly students of color. It has also called for significant public reinvestment in higher education.

One emerging example of this effort is the Science Technology Engineering and Math (STEM) Starter Academies. This initiative, which began in 2013, supports students at community college in pursuing STEM majors and careers.⁹² Activities of the academies, such as orientations, introductory courses, and

mentorship, help support students who need additional resources to succeed in high-growth STEM fields.

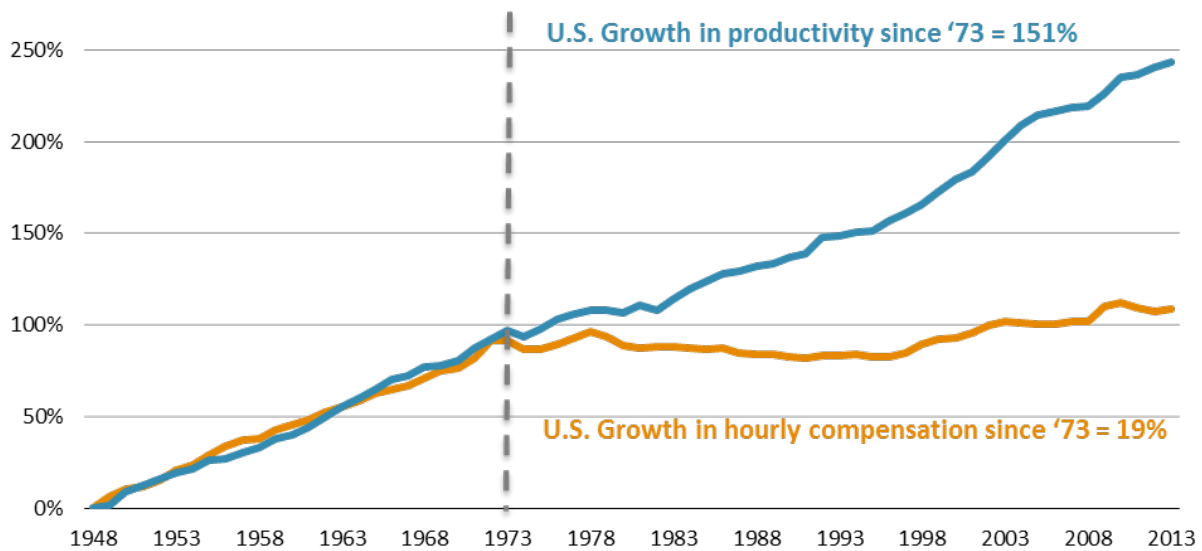
Initiatives like this offer promise in improving the experience of students at community colleges, where over a third of all Black students in Massachusetts (inclusive of the total in both public and private schools) pursue their education.⁹³ Programs that provide students a strong start, coherent pathways to careers after graduation, and intensive support along the way, align with effective community college practices identified by leading experts.⁹⁴ However, these types of efforts could promote student success more broadly if they reached more students; only 1,300 students (out of the total of roughly 60,000 students in Community Colleges) participated in STEM academies in 2014.⁹⁵ Additionally, as of yet, the long-term results remain to be seen.

THE STATE OF BLACK MASSACHUSETTS: ISSUES IN THE ECONOMY

A strong economy is one that works for everyone, where wages for typical workers grow along with growth in the overall economy. From the late 1940s through the early 1970s, the benefits of economic growth (productivity) did lead to rising compensation for most workers, as shown in the left-hand portion of the graph below. Productivity and hourly compensation rose at very similar rates. This served to raise the living standards for millions of working households. However, since the mid-1970s, while productivity continued to grow, wage growth for most workers slowed considerably, creating an economy that has not been working as well for everyone.

Growing Compensation and Productivity Gap is Our Central Economic Challenge

Cumulative percent change since 1948



Source: Economic Policy Institute analysis of unpublished Total Economy Productivity data from Bureau of Labor Statistics' Labor Productivity and Costs program, wage data from the Bureau of Labor Statistics' Current Employment Statistics, Bureau of Labor Statistics' Employment Cost Trends data, and the Bureau of Economic Analysis' National Income and Product Accounts

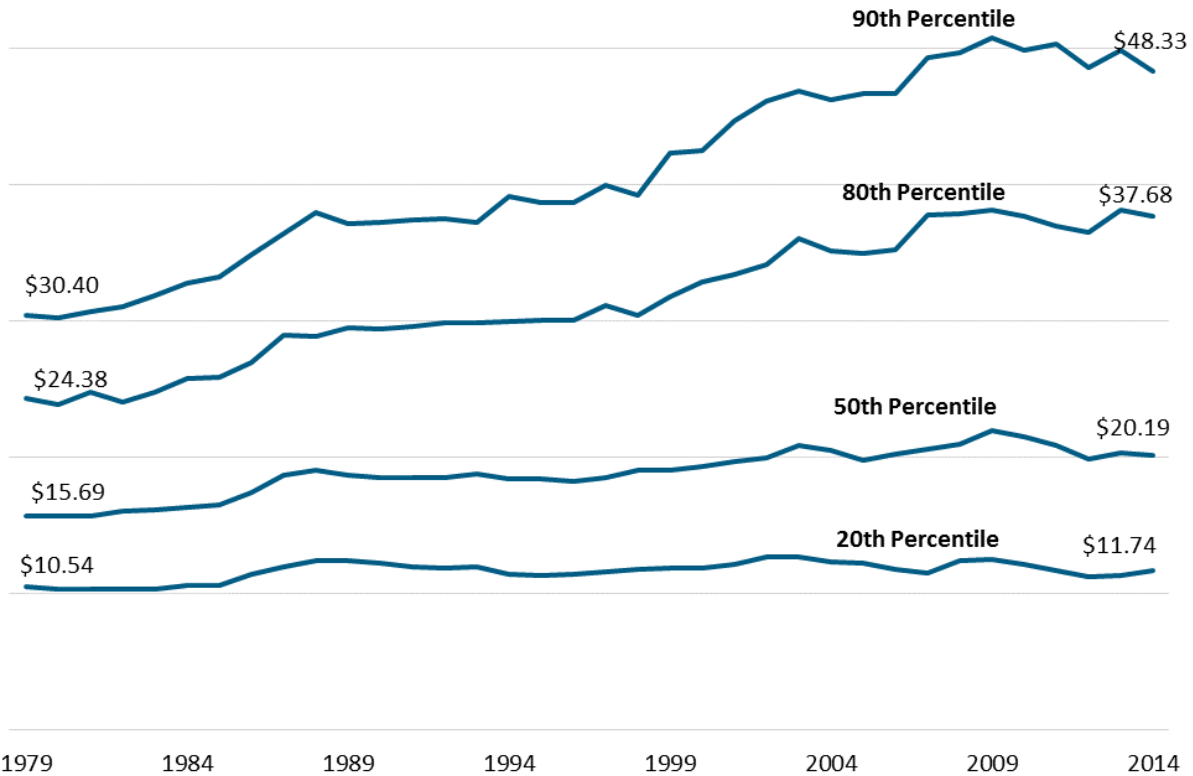
The failure of compensation to grow with economy-wide productivity is primarily a result of national-level decisions. For the past 35 years, there has been an abandonment of full employment as a main objective of economic policymaking, a decline in unionization, and international trade policies that don't support wage growth.⁹⁶ Furthermore, value of the minimum wage has eroded over time.⁹⁷ Poor wage growth has made it difficult for many working families to thrive, including many families of color. Nevertheless, states like Massachusetts can make policy decisions to improve wages and conditions of working people by concentrating on investments in education and infrastructure, raising the minimum wage, and modernizing the labor standards that enable workers to balance work and family obligations.

Even in Massachusetts, one of the wealthiest states in the nation, for many working families the last 30 years have been less about building economic security and improving their living standards, and more about the struggle simply to stay afloat. As shown below, the lowest-income households (those

currently making on average \$11.74 per hour) saw very little income growth over the past three decades, adjusting for inflation. Median income households (those making on average \$20.19 per hour) saw only modest gains. Only the higher income earners saw large gains.

Stagnant Growth For Low and Middle Income Massachusetts Households

Massachusetts median wages from 1979-2014 by income groups, 2014\$

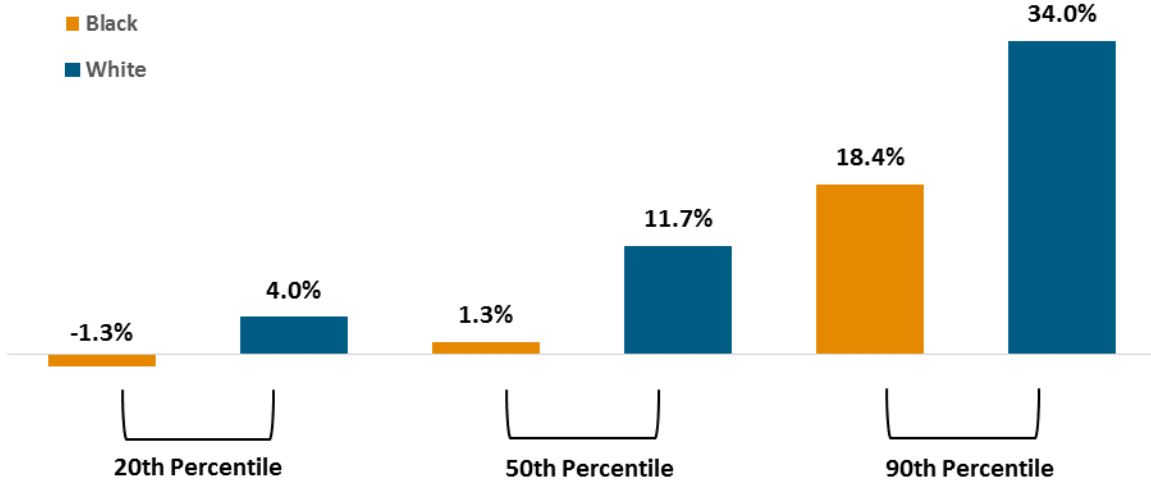


Economic Policy Institute analysis of Current Population Survey data

These wage trends are similar when broken down by race. For instance, from 1979 to 2014, Black workers in the lowest 20 percent of the income range (those making on average \$9.29 per hour) actually saw their wages decline by 1.3 percent over 35 years (see graph below). Black workers at the median (making on average \$13.97 per hour) saw marginal gains, with 1.3 percent growth over this same period. Only those in the top 10 percent of Black earners (making about \$31.17 per hour) saw any substantial wage growth— a still very modest 18.4 percent. While the overall trend is similar for Black and White workers— meaningful wage growth only at the very high end of the income spectrum— White workers at each level experience larger gains than their Black counterparts. Part of this gap can be explained by weak rates of job creation, higher unemployment rates, and different education profiles.⁹⁸ Higher wages strongly correlate with higher levels of educational attainment. Historically, the education system left too many students behind, particularly kids of color. Recently, test scores of Black students and other students of color have improved in Massachusetts, narrowing the gap, but there is more that the state can do. (For more detail, see the Education section of this report.)

Wage Gaps for Whites and Blacks Widen for Higher Earners

Percent of change in US median household incomes from 1979-2014, by income groups (adjusted for inflation)



Economic Policy Institute analysis of Current Population Survey data

While deeper solutions to income stagnation and growing income inequality require action at the federal level, states do have some policy tools for improving local economies and economic conditions for people of color. Massachusetts already has taken an important step by adopting a gradual increase in the minimum wage to \$11 an hour in 2017.

Additionally, increasing investments in early education and care can make child care more available and affordable for working families. It provides the dual benefit of helping parents remain in the workforce and preparing kids for success in school and beyond (see the Early Education part of the Education section).

Similarly, increasing investments in higher education that make college more affordable can strengthen our state’s skills-based economy over the long-term and better equip workers to support themselves and their families. College graduates tend to earn significantly higher wages than workers with a high school diploma or less (see the Higher Education part of Education section). Increasing investments in all types of education can build a strong foundation for a more productive and stronger economy.

Further, our state government has a critical role to play in supporting the ability of all residents to find and keep good jobs. Investments that make public transportation accessible and affordable literally make it possible for people to get to work. Workforce training, meanwhile, provides people with the skills they need once they arrive on the job, allowing them to support their families and contribute to a stronger Massachusetts economy.⁹⁹ However, since FY 2001, funding for workforce development programs has declined by almost 23 percent (see [MassBudget’s Jobs & Workforce Budget](#)).

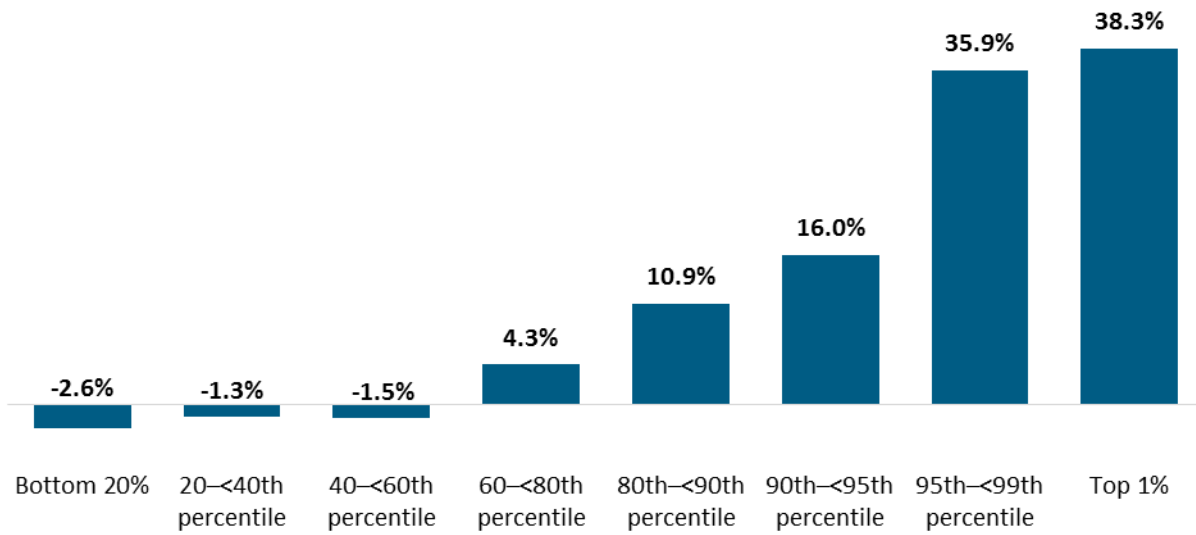
Wealth

Wealth provides families and communities with greater economic security and opportunity. It enables families to make long-term investments in their future, like paying for higher education, making a down payment on a house, starting a business, saving for retirement, and absorbing financial shocks like losing a job. A family’s overall wealth includes money held in savings or checking accounts, real estate, stocks or mutual funds, and income set aside in retirement accounts.¹⁰⁰ As distinguished from wealth, income from work tends to be used for day-to-day needs like housing costs, groceries, transportation, and clothing. Particularly for low-wage workers, income can be very unpredictable.

The distribution of wealth in the U.S. is profoundly unequal. From 1983 to 2010, the top 1 percent of households captured nearly 40 percent of total wealth growth, while the bottom 60 percent experienced an overall decline in wealth.¹⁰¹

Over the Past 30 years, Nearly 40% of Wealth Accrued at the Top 1%

Share of U.S. total household wealth growth accruing to various wealth groups, 1983-2010

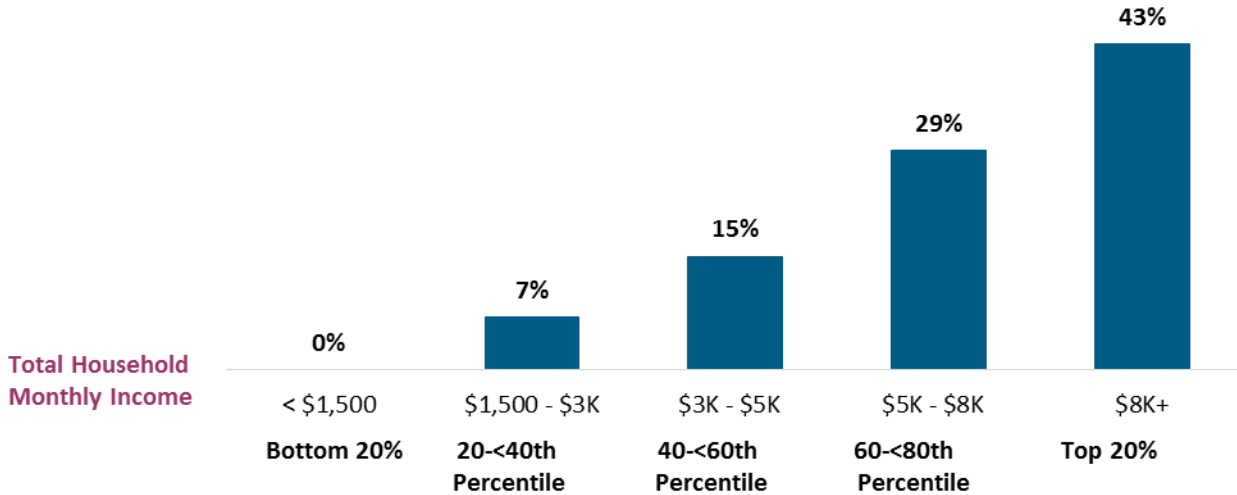


Economic Policy Institute, State of Working America, 12th Edition

The concentration of wealth at the top has a profound impact on households of color. With fewer resources to fall back on, these households are more vulnerable to a financial crisis or sudden loss of income. On average, Black households hold significantly less wealth than White households in the U.S. And these differences hold even for Black and White households of similar income levels, as shown in the graph below.¹⁰² For instance, if both a Black and a White working household earn \$3,000 per month, the Black household will only hold 15 percent of the wealth of the White household. If a White household’s assets amounted to \$1,000, for example, then a Black household’s net worth would be just \$150.

Across All Income Levels, Black Households Have Much Less Wealth Than White Households

Ratio of U.S. Black-to-White median net worth by income quintile, 2011



U.S. Census Bureau’s Survey of Income and Program Participation analyzed by Center for Global Policy Solutions and The Research Network on Ethnic and Racial Inequality at Duke University (2014) in *Beyond Broke: Why Closing the Racial Wealth Gap is a Priority for National Economic Security*.

If we zoom into Boston, similar results are found. Black household wealth in Boston is only a fraction of White household wealth. The median net wealth of White households stands at \$247,500, whereas for Black households the median net wealth is just \$8, enough for a sandwich and nothing more.¹⁰³ That means fewer financial resources to draw upon in times of emergency and less to invest in their own future and that of their kids.

For most people, the primary way to build wealth is through homeownership. Homes are the most valuable asset owned by most middle-class households and comprise the majority of middle-class household wealth.¹⁰⁴ This major avenue of wealth generation has been at times closed off and at other times less available to communities of color. Past policy choices prevented many people of color from obtaining loans or other financial services, which would have allowed them to accumulate wealth for themselves and future generations. In 1934, the Federal Housing Administration (FHA) helped to spur homeownership specifically in American suburbs by insuring mortgages. Yet a series of policies adopted by the FHA at that time prevented people of color from obtaining

A Typical White Household in Boston Holds On Average \$247,500 in Wealth. A Typical Black Household Holds Essentially No Wealth.

White Household

Black Household

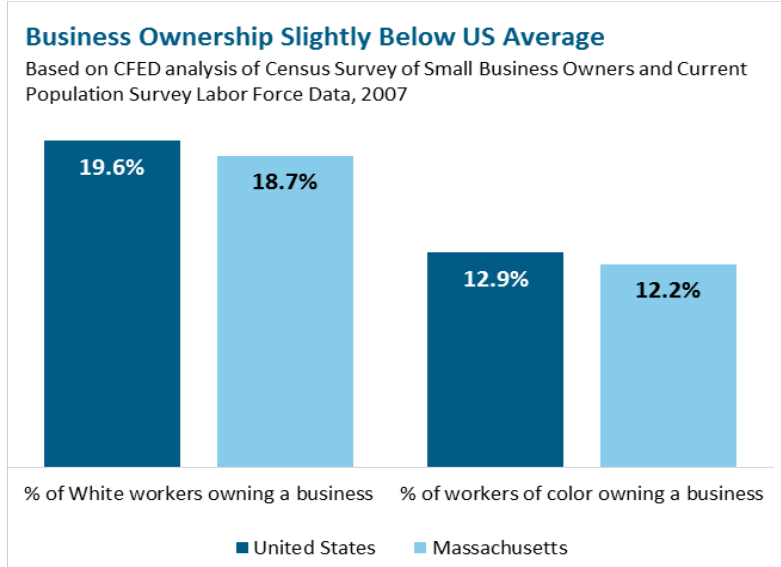
= \$10,000 = \$1

mortgages on suburban homes.¹⁰⁵ Through a practice called “redlining”¹⁰⁶, the FHA also denied borrowers in the urban core, many of whom were people of color, from obtaining mortgages to purchase housing in their own neighborhoods.¹⁰⁷

The adoption of the Fair Housing Act in 1968 ended policies that had prevented many people of color from obtaining mortgages. But by that time, much damage was already done and neighborhoods in which a majority of people of color live have faced other discriminatory lending practices over the years. In the late 1990s and early 2000s, for example, mortgage companies targeted Black and Latino borrowers with high-interest mortgage loans. A series of reports prepared for the Massachusetts Community & Banking Council on mortgage lending patterns shows that even in the late 1990s and early 2000s, people of color were more likely to receive high-cost mortgages even if they had the same income as White borrowers who qualified for market-rate loans.¹⁰⁸ When the mortgage crisis hit in 2007, it was often the communities with the greatest share of these high-interest loans that suffered the highest foreclosure rates.¹⁰⁹ The targeting of people of color with high-interest loans resulted in households of color having much lower rates of homeownership than White households, losing much of the little wealth they had. In Massachusetts, White households are 2.2 times as likely to own a home as households of color.¹¹⁰

Creating new businesses is another tool for the development of wealth. Successful business creation helps strengthen individual families, helps enrich local communities, and contributes to long-term economic growth. One challenge is that starting a business often requires a substantial up-front investment, either from personal resources or from outside investors. Tapping into such resources is more difficult for people who have historically had less access to wealth.

Overall business ownership rates in Massachusetts are slightly below the national average, according to a Corporation for Enterprise Development (CFED) analysis of U.S. Census data.¹¹¹ Both White individuals and individuals of color in Massachusetts own businesses at lower rates than their national counterparts. Consistent with the finding that Black families in Massachusetts have been able to accumulate less wealth, we also find a lower rate of business ownership among people of color.¹¹²



Fortunately, there are public programs, such as the Massachusetts Small Business Development Center (MSBDC) at the University of Massachusetts that can help overcome some of these barriers to entry. MSBDC is a federal-state partnership that provides supports to small businesses, including training, technical assistance and financial plan development, and financing and loan assistance.¹¹³ The Boston Regional Office particularly strives to leverage resources for minority entrepreneurs.

Just as low levels of wealth for low-income people and people of color are in large part the result of policy decisions made over the course of generations, many policy opportunities exist for reversing this

trend. Recently, Massachusetts enacted a 50 percent increase in the Earned Income Tax Credit (EITC), which will boost after-tax income for thousands of working families.¹¹⁴ The EITC is a refundable tax credit available to lower-income workers, primarily those with children. In addition to boosting the wages of low-income families, the EITC creates an opportunity for saving, as this is likely the largest lump sum payment they will receive all year.¹¹⁵ Additionally, the state can invest in a state Individual Development Account (IDA) program. IDAs are matched savings accounts that enable low-income families to save towards the purchase of a lifelong asset, like a home, a business, or further education.

The state and federal governments also can consider other policies that enable families to build wealth, such as stricter enforcement of housing anti-discrimination laws and assisting first-time homebuyers with lower interest rate mortgages. Since Black families and other families of color still face barriers to home ownership, stricter enforcement of housing anti-discrimination laws would support these families when purchasing homes in higher-value neighborhoods.¹¹⁶ Moreover, statewide and local programs that directly support first-time homebuyers can make homeownership more accessible. For instance in Boston, the Affordable Home Opportunities and financial assistance programs assist city residents with resources and services to purchase affordable homes.¹¹⁷ At the state level, Massachusetts offers affordable mortgages through its ONE Mortgage program for low- and middle-income people who are purchasing their first house. ONE Mortgage provides low-interest, fixed rate mortgages, covers the cost of mortgage insurance and provides counseling to help participants both purchase their houses as well as keep them over the long run. The program maintains low delinquency and foreclosure rates while serving lower-income borrowers and raising owner-occupied homeownership in poorer urban neighborhoods through pre-purchase education and post-purchase services.¹¹⁸

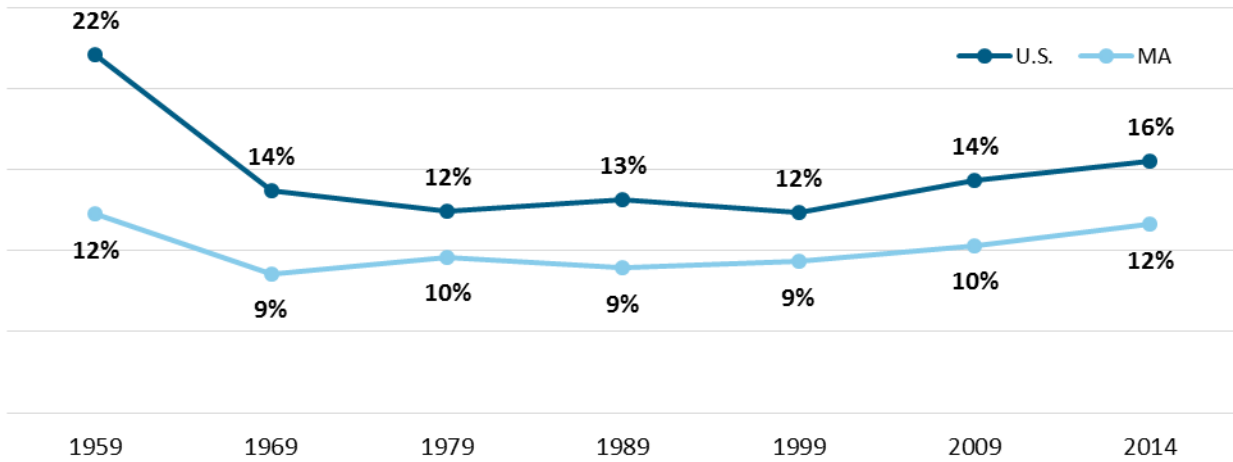
Additionally, federal agencies, like Fannie Mae and Freddie Mac, can work towards protecting the home equity wealth of Black and Hispanic/Latino homeowners by reducing mortgage principals and making other loan modifications for struggling homeowners.¹¹⁹ Many Black families still are feeling the effects of being subjected to subprime mortgages. Policies that enable agencies to reduce mortgage principals and modify mortgage loans can help these families protect their homes from foreclosure, preserving their home equity.¹²⁰

Poverty

Massachusetts is stronger when all workers earn enough to pay for basic necessities and provide for their families. This economic security depends on reliable access to opportunities that offer good incomes and that allow workers to share in the benefits of economic growth. However, due to overall changes in our economy – in particular, that wages no longer keep pace with productivity growth – many low-income working families find that, despite their best efforts, they cannot raise their standards of living. Massachusetts has one of the lowest poverty rates in the country, but it remains higher than it was in the years leading up to the Great Recession in 2008.¹²¹ In 2014, close to 1 in 9 people in Massachusetts lived below the federal poverty level – or less than \$19,000 a year in income for a family of three. (For more information on people in poverty by city and town in Massachusetts, like Springfield and Worcester, see the [Kids Count Data Center](#).)

Poverty Rates Are Gradually Climbing, Past 25 years

Poverty rates for individuals, 1959-2014, federal threshold

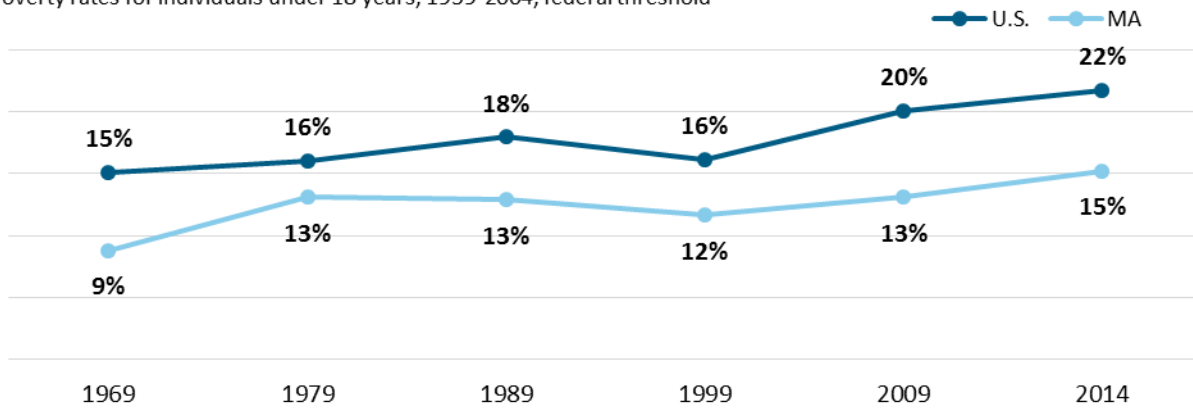


1959-1999 data from Decennial Census; 2013 & 2014 American Community Survey 1-Year Estimates, U.S. Census Bureau

Still more troublingly, child poverty in the U.S. and Massachusetts has been growing since 1999. In 2014, almost 1 in 6 kids lived below the federal poverty line in Massachusetts.

Child Poverty on the Rise in the US & MA

Poverty rates for individuals under 18 years, 1959-2004, federal threshold

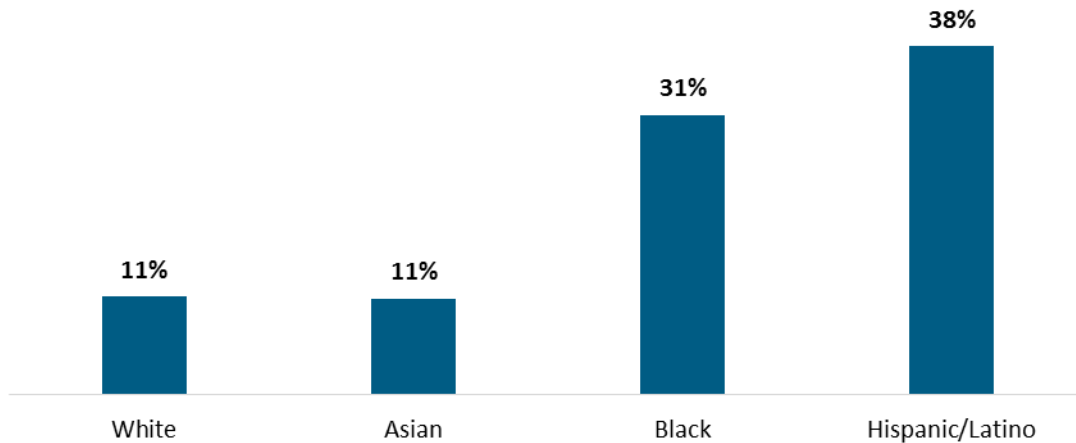


1969-1999 data from Decennial Census; 2013 & 2014 American Community Survey 1-Year Estimates, U.S. Census Bureau

For children of color, the challenges created by poverty are particularly acute. Thirty-one percent of Black kids and 38 percent of Hispanic/Latino kids live in poverty.

Black and Hispanic Kids Face Higher Rates of Poverty

Poverty rates for individuals under 18 years, 2014, federal threshold



U.S. Census Bureau. 2014 American Community Survey. Poverty Status in the Past 12 Months

What's more, close to a quarter of Black children and nearly 30 percent of Hispanic kids live in communities with concentrated poverty.¹²² These areas are dense residential communities of the poor that result in higher crime rates, underperforming schools, poor housing conditions, with limited access to jobs.¹²³ Whether or not these children are poor themselves, they are at risk of a lower long-term standard of living because they live in these under-resourced communities.¹²⁴

The official federal poverty measure – shown above – uses a narrow income standard to define poverty. It is based on the cost of food in 1963 that is multiplied by three and adjusted for inflation. In 2009, the U.S. Census Bureau began to calculate a second poverty measure called the Supplemental Poverty Measure (SPM).¹²⁵ The SPM is an alternative way to measure poverty that (among other things) takes into account that living expenses vary in different parts of the country. It calculates income more comprehensively by including a variety of non-cash benefits such as the value of housing subsidies and food assistance programs, and it also takes into account necessary expenses such as work expenses and out-of-pocket medical costs.¹²⁶ SPM calculations reveal the strong impact of key public supports. Based on estimates from 2009 to 2012, approximately 813,000 people in Massachusetts on average were kept out of poverty through public supports, including 164,000 kids.¹²⁷

Key programs, like the Supplemental Nutrition Assistance Program (SNAP) - formally called food stamps - has alone kept about 86,000 people out of poverty each year in Massachusetts.¹²⁸ SNAP is one of the most effective anti-poverty tools in the nation, providing low-income households with debit cards to purchase food on a monthly basis. Likewise, tax credits like the Earned Income Tax Credit and the Child Tax Credit help lower-income working parents significantly boost their after-tax household incomes. Each year, about 74,000 kids in Massachusetts are kept out of poverty by these tax credits.¹²⁹

Increasing the minimum wage is a policy that can help raise the living standards of low-wage families. As mentioned previously, Massachusetts recently adopted a phased approach to increasing the state minimum wage to \$11 per hour by 2017. But when the minimum wage reaches \$11 per hour, many low wage families still will struggle to get by. In 2017, a full-time, year-round minimum wage worker will only earn \$21,903 (adjusted for inflation). In order to address the challenge of low wages, there is a growing national movement to raise the minimum wage to \$15 per hour for fast-food workers.¹³⁰

Family-friendly protections are another policy tool that helps workers to better balance the daily challenges of being good parents and hard-working employees. One such policy, earned paid sick time (EPST), was implemented in 2015 in Massachusetts. EPST provides job-protected, paid time off to workers who need to address a health issue for themselves or for an immediate family member. Prior to the law, nearly a third of Black workers and nearly half of Hispanic/Latino workers in Massachusetts did not have the ability to take off job-protected sick time.¹³¹

Similarly, another family-friendly policy is paid family and medical leave (PFML), which allows workers to take paid time off in order to address a serious health condition, support a family member with a serious health condition, or care for a new child.¹³² In Massachusetts, some workers get paid family and medical leave through their employers. However, most workers are not guaranteed paid time off to address serious health conditions or the birth of a child.¹³³ In fact, only 13 percent of New England civilian workers have access to PFML, according to the U.S. Department of Labor.¹³⁴

STATE OF BLACK MASSACHUSETTS: ISSUES IN HEALTH

A healthy society provides more than just access to regular medical check-ups and world-class health care. Clean air and water, well-maintained housing, jobs that provide an adequate income, safe and uncontaminated places for children and adults to enjoy, and the availability of nutritious food, are all major factors influencing health. In a healthy community, children are born healthy and can grow up to be healthy adults. When people are healthy, they are better able to reach their full potential and make long and lasting contributions to society. Everyone in Massachusetts should have this opportunity, and making sure that all communities have the resources they need to be healthy benefits the entire Commonwealth.

The economic well-being of a community has a significant impact on the health of its residents since it can determine whether or not families have clean and safe environments, stable jobs that pay well, safe and affordable housing, good schools, supermarkets, and other community resources. Unfortunately, many communities in Massachusetts lack these resources and the public systems that they need to be healthy.

Health Coverage: An Important First Step

Massachusetts has long been a leader in health care and for almost a decade has led the nation in the rates of health insurance coverage, particularly for children.¹³⁵ Massachusetts is also internationally known for its top-notch medical facilities.¹³⁶ Furthermore, Massachusetts has led the way in helping people obtain the health insurance coverage that enables residents to get the medical care they need.

Fourteen of Fifteen Black Residents in Massachusetts Have Health Insurance Coverage

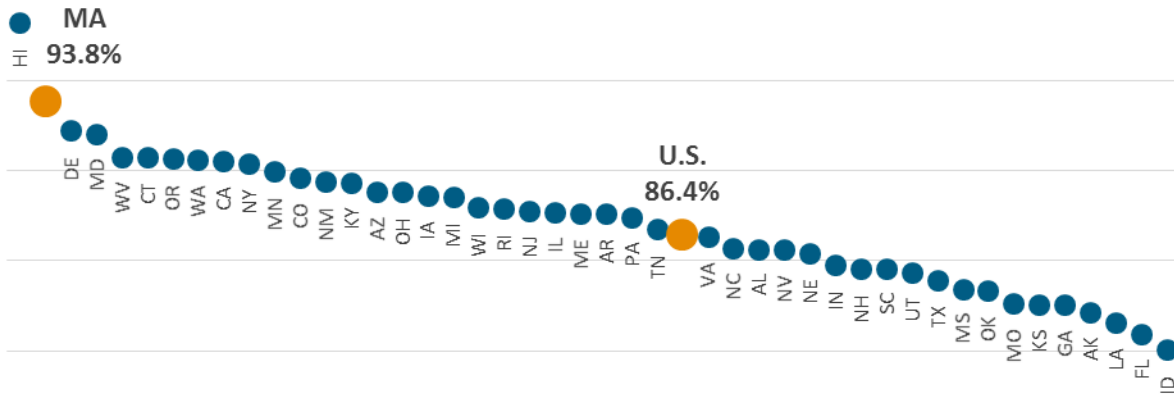


U.S. Census Bureau, 2014 American Community Survey

Health care coverage in Massachusetts is impressive, thanks in large part to the state’s 2006 health reform efforts and subsequent expansions of coverage under the federal Affordable Care Act. There are, however, slight variations in health insurance coverage by race in Massachusetts. Overall, close to 97 percent of Massachusetts residents have health insurance, far more extensive coverage than any other state.¹³⁷ By comparison, though, 94 percent of Black residents in Massachusetts have coverage. Nevertheless, health insurance coverage for Black residents of Massachusetts is better than all other states but Hawaii (see chart).¹³⁸ Massachusetts has the third highest rate for health insurance coverage for Hispanic residents nationally, also at 94 percent.¹³⁹

Health Insurance Coverage for Black Residents in Massachusetts is Higher Than in All But One State

Percent of Black residents insured



U.S. Census Bureau, 2014 American Community Survey

These figures show that, though Massachusetts can rightly be proud of successful investments in almost-universal health insurance coverage, some families are still vulnerable to being without health insurance – whether because of employment instability or because of problems with maintaining publicly-subsidized coverage. Coverage can vary from place to place. In some towns in Massachusetts almost every person is insured, and in others close to one out of every ten residents is without health insurance.¹⁴⁰ Accordingly, there is an important role for community-based outreach and enrollment programs, particularly those for immigrant communities and others with relatively higher levels of people without health insurance.

Social and Environmental Factors Affect the Health of People and Communities

Although health insurance coverage and medical care are important, most researchers now acknowledge that social and environmental factors play an even larger role in health.¹⁴¹ This means that differences in health among groups of people are highly dependent on the social and economic conditions in which people live, and are largely preventable. These differences show up from the earliest days of life, and continue throughout the lifespan, with the impact of social and economic factors accumulating over time.

Several Factors Influence Health



Adapted from Blue Cross Blue Shield of Mass. Foundation, *Leveraging the Social Determinants of Health: What Works?*

In Massachusetts, Black and Latino/Hispanic families are more likely to live in low-income neighborhoods. These neighborhoods are less likely to have the resources that help create healthy communities. The schools are more likely to have fewer supports for the students, the infrastructure such as sidewalks and buildings are less likely to be well-maintained, and the residents are less likely to have access to safe parks and playgrounds.¹⁴²

Past policy decisions that kept families of color from buying homes in better-off White neighborhoods and that denied loans and other financial services to poorer communities of color have played a major role. Many communities of color were unable to create wealth for themselves or future generations because of these policies and, as a result, continue to live in neighborhoods with less opportunity. (See the Wealth part in the Economy section above for a full discussion of this issue.) Together, these conditions have made their mark on the health of communities of color in Massachusetts.

To address the health of communities of color, and to consider how social and economic factors have a direct impact on health, a good place to focus is on the health of children. There are a few key childhood health indicators that are themselves important predictors of health conditions into adulthood: birth weight, lead exposure, asthma, and healthy childhood weight. These childhood health issues have a direct impact on a child's physical, social, emotional, and academic development, all of which set the stage for lifelong well-being.¹⁴³

Many Factors Can Promote Healthy Pregnancy and Healthy Birth

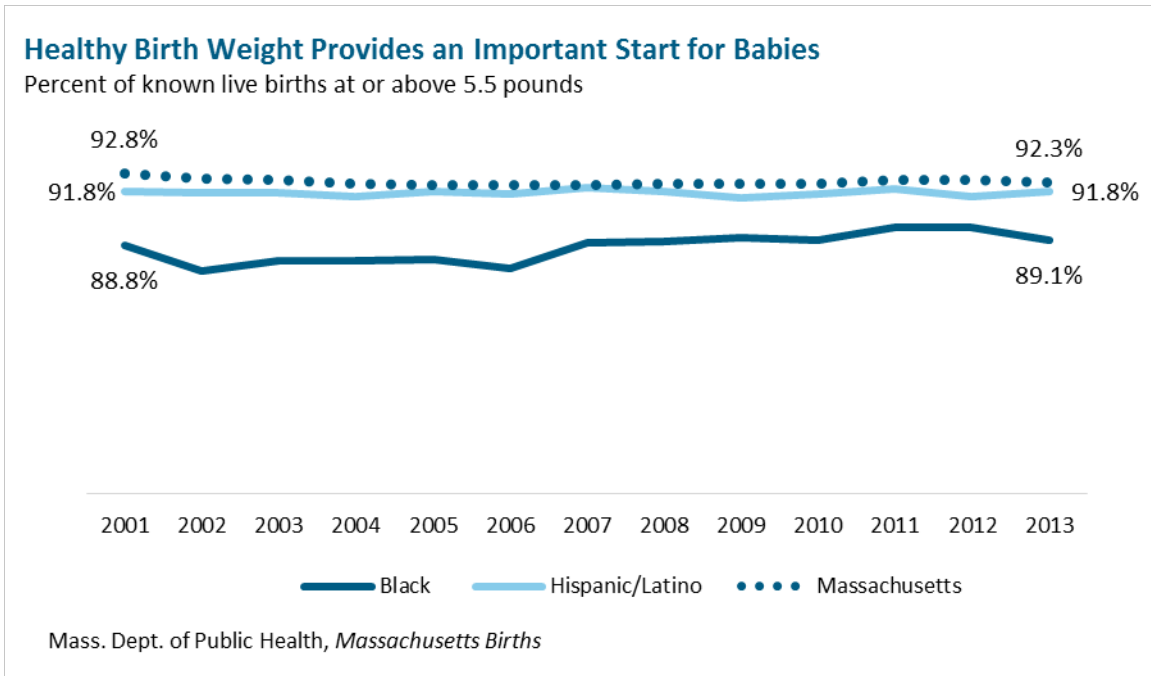
The health of a community can have a significant impact on the health of the mothers and infants who live there. Mothers who live in safe and stable housing, can get fresh and healthy food, are free from the deep stresses that can accompany economic or social instability, and are better positioned to have a healthy pregnancy and give birth to a healthy baby. Regular prenatal checkups are important, too, and they also are a factor of economic well-being.

Babies born at a weight of 5.5 pounds or less are counted as "low birth weight." Sometimes genetic reasons, including the size of the parents, explain this, but for many babies low birth weight is the result of a premature birth or of complications affecting growth while in the womb.

Although some low birth weight babies are healthy, most are at greater risk for a variety of respiratory and other disorders, including heart problems, anemia, and infections. These babies are also at greater risk for poor growth through childhood and developmental problems.¹⁴⁴

In 2013 in Massachusetts, 89.1 percent of Black babies were born at a healthy weight, and 91.8 percent of Hispanic babies were born at a healthy weight. Overall, 92.3 percent of babies in Massachusetts were born at a healthy birth weight in 2013.

Although there has been a slight increase in the share of babies born with low birth weight since 2001 in Massachusetts, the good news is the rate for Black babies in Massachusetts has declined slightly (see chart).¹⁴⁵

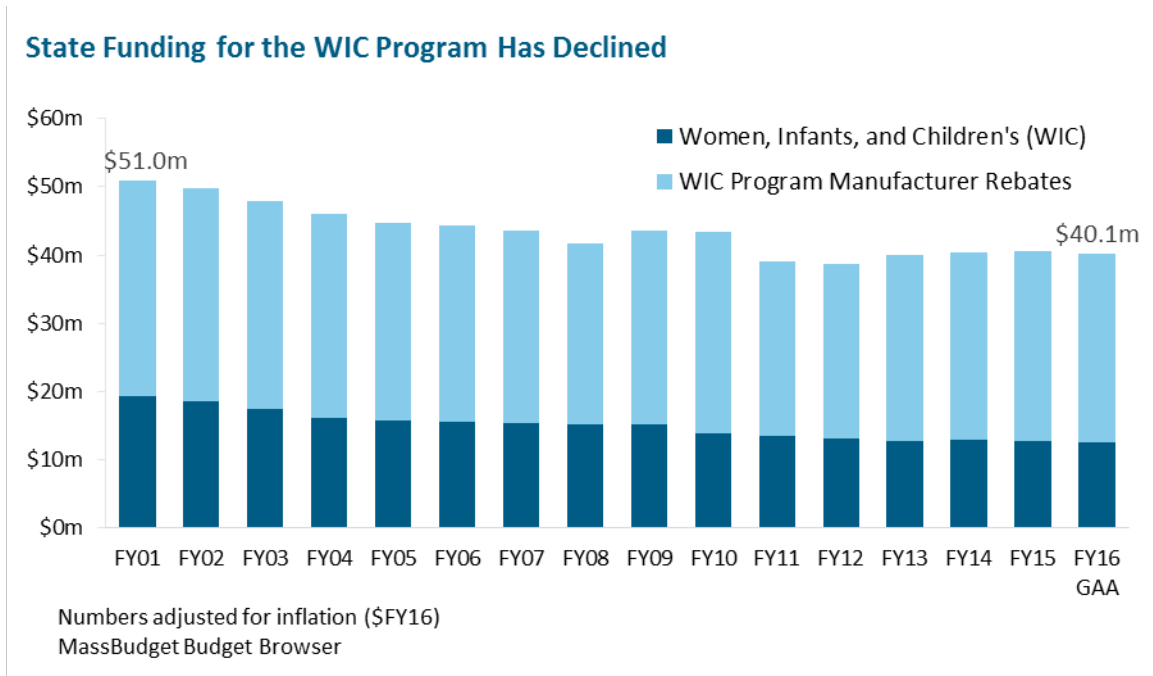


Because multiple factors affect a baby’s birth weight, the differences among these rates cannot be ascribed to any single factor. A recent examination by the Boston Public Health Commission on the slight improvement in the rate of low birth weight in the Black community speculated that the change could be in part due to the concurrent decline in preterm births and in the decline in births to teen mothers. The Commission also pointed to efforts in the city to address infant mortality and low birth weight with focused attention to the health of women prior to becoming pregnant, an emphasis on reducing social isolation among pregnant women, and helping pregnant women address hardships associated with housing instability, lack of healthy food, family medical issues, or other financial concerns.¹⁴⁶

Massachusetts has long made a commitment to adequate prenatal care for all pregnant women. The Healthy Start initiative, now fully incorporated into the state’s MassHealth program, promotes health insurance coverage of prenatal care for all pregnant women, regardless of income or immigration status. This means that no pregnant women should have to hold back on getting regular prenatal checkups due to concerns about health insurance.

Another important support for healthy pregnancy comes from the Supplemental Nutrition Program for Pregnant Women, Infants, and Children (WIC). WIC is a vital resource for low-income pregnant mothers, providing healthy food and nutrition counseling. More than 10,000 pregnant women participate in Massachusetts’ program each month.¹⁴⁷ Research has estimated that mothers’ participation in WIC can lead to as much as a 10 percent increase in birth weight.¹⁴⁸

Though WIC is largely federally-funded, state money also supports the program, as well as revenue from infant formula manufacturers’ rebates.¹⁴⁹ State funding for WIC, however, has dropped 20 percent since 2001.



Lead Poisoning and Asthma are Among Environmental Factors Threatening Childhood Health

Environmental issues associated with poorly-maintained housing, air pollution, and other conditions are often present in low-income neighborhoods and can have lifelong health impacts. For young children, exposure to environmental toxins and allergens can affect the development of the lungs, brain and other major organs.

Lead Poisoning

Lead poisoning – elevated levels of the substance in one’s blood – is a significant health hazard in some communities.¹⁵⁰ Low-income children in poorly-resourced communities are at highest risk. Fortunately, government regulations over the years have taken this health risk to children head-on, leading to substantially reduced exposure to lead.

Until it was fully banned in 1996,¹⁵¹ lead was an important ingredient in gasoline; children playing in urban communities or in other places near roadways were at risk of breathing air contaminated by car exhaust.

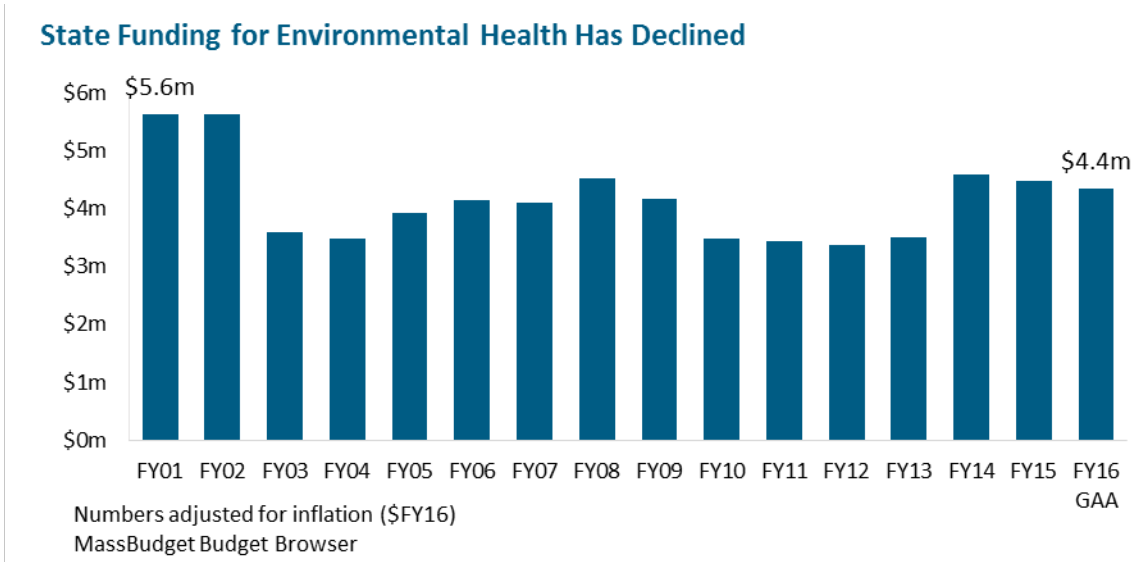
For generations lead was also a key ingredient in household paints. Simply by accidentally ingesting chips of old paint from window sills or walls, or by breathing air containing dust from lead paint, children can suffer permanent brain damage, learning disabilities, or behavioral problems.

Lead exposure in childhood has lifelong health impacts, with symptoms sometimes not showing up until adulthood. The relationship between early childhood lead exposure and persistent poor academic performance in children is well documented. Children who have shown evidence of lead poisoning are significantly less likely to graduate from high school than non-affected children.¹⁵² In addition, there is

research exploring the possibility that lead poisoning might cause cognitive damage associated with forms of adult antisocial behavior.¹⁵³

Seven out of every ten housing units in Massachusetts were built before 1978, before the beginning of regulatory reductions in lead in the environment.¹⁵⁴ In some towns, more than 90 percent of housing was built before the lead poisoning prevention laws banned the addition of lead in paint. In many communities, particularly those with higher concentrations of low-income families, the older housing stock places young children at direct risk for lead poisoning. Lead paint inside houses as well as lead-poisoned dirt outside are major sources of lead poisoning for low-income children.¹⁵⁵ With families of color in Massachusetts disproportionately living in poorly-resourced communities with more-poorly maintained housing stock, they are exposed to higher lead risk.

A childhood lead poisoning prevention program is run out of the Bureau of Environmental Health at the state Department of Public Health (see chart). There is also separate funding to support payments for tests of children’s blood for lead exposure¹⁵⁶, and a tax break for property owners that helps offset the cost of removing lead from residential buildings.¹⁵⁷



In 2014, approximately 3 percent of the Commonwealth’s children under four years of age had blood lead levels high enough to present a public health concern. This was close to 5,000 children, with 660 of them having a more dangerous “elevated” blood lead level. It is important to note that medical professionals consider that there is no safe level of lead in the blood.¹⁵⁸ Although the state does not track childhood lead exposure by race, the Department notes that apparent racial disparities exist with respect to childhood lead exposure and it is working toward increasing the reporting of race and ethnicity data on lead exposure. The Department believes there is correlation between census tracts having higher rates of elevated blood lead levels and those with higher percentages of Hispanic or non-white residents.¹⁵⁹ Tracking lead exposure by race in addition to the detailed data also provided by towns will enable the state to better monitor the potential disparate impact of lead poisoning on communities.

Asthma Triggers

Another environmental danger for young children’s healthy development is exposure to allergens and other asthma triggers. Asthma is a major cause of absenteeism from school, and one of the most prevalent chronic illnesses among children in the U.S. Asthma can be controlled with medicine, but it is also important to avoid or remove environmental triggers that can bring about an asthma attack, and the costs of asthma medication can be prohibitive for some families.

Many of the most common asthma triggers are directly related to housing and other community conditions, including exposure to toxic chemicals. In Massachusetts, the identified “brownfields,” or properties that have been contaminated or are possibly contaminated, are more likely to be located in or near low-income communities.¹⁶⁰ The Commonwealth developed an Environmental Justice Policy (currently under revision):

to help address the disproportionate share of environmental burdens experienced by lower-income people and communities of color who, at the same time, often lack environmental assets in their neighborhoods. . . . There are basically two frameworks of environmental equity: stopping the environmental “bads,” such as a disproportionate burden of toxics; and promoting the environmental “goods,” such as assuring access to parks, green amenities, and recreational opportunities.¹⁶¹

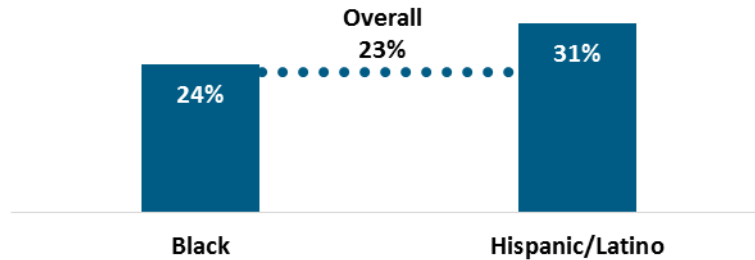
A recent analysis of brownfields redevelopment in Massachusetts noted that contaminated land is less likely to be cleaned up in communities with fewer economic resources. Particularly vulnerable are immigrant communities that might be less able to mobilize to fight placement locations of businesses that generate toxic chemicals and other contaminants.¹⁶²

In addition, for children living in low-income communities with older housing that may be poorly maintained, exposure to dust mites, cockroaches, mold, and air pollution such as exhaust from nearby roadways, can also have lifelong health consequences. Research has documented that because of historic patterns of housing and community development, low-income children of color have been disproportionately living in neighborhoods with poor-quality housing made with materials that can degrade into asthma-triggering allergens.¹⁶³

Close to one of every four Black children of middle school age has had an asthma diagnosis, according to the most recent data the Massachusetts Department of Public Health. The number may be higher for Hispanic middle schoolers (see chart – these numbers are estimates based on surveys.)¹⁶⁴

Close to One in Four Young Black Teens Has Had Asthma; Higher Number for Hispanic Teens

Middle school children ever told by a doctor they had asthma



Mass. Dept. of Public Health, *Youth Health Survey, 2013*

There are some effective community-based programs targeting the environmental factors that can trigger asthma in children. For example, the Community Asthma Initiative of the Boston Children's Hospital is an innovative asthma intervention program designed to reduce asthma-related emergency room visits, particularly targeting low-income children of color. The hospital found that asthma-related hospitalizations and

emergency room visits were particularly high for Black and Hispanic children. The hospital's program has been remarkably successful, in large part because it goes directly to the environmental conditions that lead to asthma in Boston's children. In this program, nurse case managers and other community health workers work directly with families in their homes, and provide extensive education in how to manage an asthma attack. They also use the home visits to help families identify and address environmental triggers for asthma, offering information about alternative cleaning products that are less likely to trigger asthma and providing special bedding and vacuum cleaners that can help reduce the asthma triggers that can be created by older housing materials.

This pilot initiative is a national model, and is keeping down health care spending associated with childhood asthma. Unfortunately, MassHealth or commercial insurance does not yet cover these community-based, in-home services.

Food-Related Issues Affect Childhood Health

There are health consequences when communities have limited recreational facilities, safe places to play outdoors, or grocery stores that offer healthy and affordable food. There are health consequences when the schools that children attend do not provide affordable healthy food or snacks, or when children cannot afford to participate in after school activities and are more likely to be at home watching television. In such communities, children are at greater risk of becoming obese or overweight, and children of color in Massachusetts are more likely to be living in these under-resourced communities.¹⁶⁵

Childhood obesity is preventable, and there are successful community-wide efforts to support maintaining healthy weight. A recent study noted that obese or overweight children are more likely to remain obese into their adolescence.¹⁶⁶ One of the best ways to prevent childhood obesity is to create conditions that promote a healthy lifestyle, for example being active and eating healthy food.

Obesity Has Serious Health Implications

Children who are significantly overweight are at greater risk of cardiovascular disease and high blood pressure, diabetes or pre-diabetes, respiratory problems and joint problems, and sleep disturbances. Children who are obese are also at risk for a wide variety of psychological and emotional problems. Close to one of every five children or adolescents in the U.S. in 2012 was obese, and close to one of every three was either overweight or obese.¹⁶⁷

Obesity in children has long-term life impacts, such as adult obesity and the substantial associated health consequences. Obese adults are at significant risk of premature death from all causes, and at particular risk for high blood pressure, cardiovascular disease, stroke, gallbladder disease, some forms of cancer, joint and muscular problems and difficulty with physical function.¹⁶⁸

Access to Healthy Food

There is extensive documentation of the challenges facing low-income communities in obtaining healthy foods. The U.S. Department of Agriculture has mapped communities in Massachusetts, showing where it is hardest to regularly obtain healthy food, due to low income and lack of proximity to grocery stores. For low-income families without a car, there may not be convenient public transportation to a source of affordable and healthy food. In some areas, the closest sources of food are convenience stores, which are typically more expensive and have limited fresh produce and other healthy foods available. Data from the U.S. Department of Agriculture show that the low-income communities where people are least able to find healthy food¹⁶⁹ tend to be those with higher shares of residents of color.

Researchers have also recently documented that unhealthy messages communicated to children through food advertising is a leading cause of weight problems. Such advertising primes harmful eating behaviors for adults as well as children.¹⁷⁰ Worse, researchers have found evidence that some food and beverage advertisements – particularly those promoting fast-food restaurants and sugar-sweetened beverages – target these communities.¹⁷¹

Rates of Obesity

These challenges to healthy living prevalent in some communities where people of color live in Massachusetts may be contributing to rates of obesity and overweight. In Massachusetts, approximately 17 percent of Black middle school students were obese in 2013, a rate that was statistically significantly higher than the state overall estimate of 9 percent. The estimated rate for Hispanic middle schoolers was 14 percent.¹⁷²

In high school, approximately 14 percent of Black students were obese, essentially the same as the state overall high school obesity rate of 10 percent. However, approximately 17 percent of Hispanic high school students were obese, a rate that was statistically significantly higher than the state overall estimate.¹⁷³

What Communities Can Do

It is notable that some Massachusetts communities have seen reductions in childhood obesity rates by taking on a multi-faceted community-based approach. Because of the multiple factors that lead to obesity in children, the solutions for reducing it vary. Ongoing education for children about the importance of healthy eating is important, as are efforts to improve the quality of food provided for school lunches and breakfasts.

Sixty cities and towns have taken on the challenge of increasing physical activity and improving eating habits through the Department of Public Health's "Mass in Motion" campaign. Efforts include grants and technical assistance for community-based obesity prevention efforts, support for practices to improve eating and increase healthy play for preschoolers, regulations affecting some of the foods provided at school, and screening students for height and weight.

The towns that have taken a comprehensive and coordinated approach to increasing healthy eating and improving overall fitness recognize the importance of social and environmental influences on healthy behavior. Among other initiatives, these towns are making a concerted effort to improve safe access to physical activity for children, to improve the quality of food provided in schools, and to increase the availability of healthy food in retail stores and restaurants.

Another innovative program has expanded the ability of low-income families to use SNAP benefits (food stamps) at farmers' markets.¹⁷⁴ Although there are increasing numbers of farmers' markets throughout the Commonwealth, and even indoor markets that offer produce during the winter months, farmers' markets may not always be affordable for families struggling to get by. At many markets, shoppers may now use their SNAP card to purchase food, and in some programs may even get double the value of their benefits at the market.

Achieving good health in every community will help bring Massachusetts closer to being a place where race and zip code would no longer be significant factors in determining well-being. Addressing the social and economic aspects of health that place barriers in front of people of color in Massachusetts will not only improve health person by person, but will also improve the health of the entire Commonwealth.

These approaches will have direct consequences for the health of these children over the long term. As noted by the President's Task Force on Health and Safety Risks to Children:

Specifically, providing supports for families and caregivers that allow them to interact in a positive way with their children, creating safe and supportive physical and built environments, and ensuring that young children have access to adequate and healthy food are the key components that can help promote a healthy childhood and lay the foundations for a healthy adulthood.¹⁷⁵

- ¹ See Massachusetts Department of Elementary and Secondary Education, [2015 MCAS Report](#)
- ² See U.S. Census Bureau, [State and County QuickFacts](#), Bachelor's degree or higher, percent of persons age 25+, 2009-2013
- ³ Arthur MacEwan. "[Early childhood education as an essential component of economic development.](#)" 2015. Pgs. [3; 6](#)
- ⁴ Arthur MacEwan. "[Early childhood education as an essential component of economic development.](#)" 2015. Pg. [17](#)
- ⁵ See MassBudget Budget Browser, [Early Education and Care](#)
- ⁶ Christina Weiland & Hirokazu Yoshikawa. (2013). [Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills.](#) 2013. Child Development, 84(6). Pgs. 2112-2130
- ⁷ Christina Weiland & Hirokazu Yoshikawa. (2013). [Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills.](#) 2013. Child Development, 84(6). Pgs. 2112-2130
- ⁸ Unpublished data from Massachusetts Department of Elementary & Secondary Education, FY 2014 pre-kindergarten enrollment; Massachusetts Department of Elementary & Secondary Education, [2014-15 Enrollment By Race/Gender Report](#); and Massachusetts Department of Elementary & Secondary Education, [2014-15 Selected Populations Report](#)
- ⁹ Lawrence Schweinhart. "[Benefits, Costs, and Explanation of the High/Scope Perry Preschool Program.](#)" 2003. Pgs. 3-4
- ¹⁰ See HighScope, [HighScope Perry Preschool Study](#)
- ¹¹ James J. Heckman, Seong Hyeok Moon, Rodrigo Pinto, Peter A. Savelyev, & Adam Yavitz. "[The Rate of Return to the High/Scope Perry Preschool Program.](#)" The National Bureau of Economic Research. 2009. Pg. 5
- ¹² W. Steven Barnett, Kwanghee Jung, Min-Jong Youn, & Ellen C. Frede. "[Abbott Preschool Program Longitudinal Effects Study: Fifth Grade Follow-Up.](#)" 2013. Pg. 20
- ¹³ See [Kids Count 2014 Data Book](#). Pg. 26
- ¹⁴ U.S. Department of Health and Human Services. [Head Start Impact Study, Final Report](#). 2010. Pg xvi
- ¹⁵ Peabody Research Institute & TN Division of School Readiness and Early Learning. [A Randomized Control Trial of a Statewide Voluntary Prekindergarten Program on Children's Skills and Behaviors through Third Grade.](#) 2015. Pgs. 4-5
- ¹⁶ U.S. Department of Health and Human Services. [Head Start Impact Study, Final Report](#). 2010. Pgs. xvi-xvii
- ¹⁷ See MassBudget Budget Browser, [Early Education and Care](#)
- ¹⁸ Unpublished data from the Department of Early Education and Care
- ¹⁹ Jeff Bernstein & Luc Schuster. "[Building a Foundation for Success.](#)" MassBudget. 2014. Pg. 3
- ²⁰ Jeff Bernstein & Luc Schuster. "[Building a Foundation for Success.](#)" MassBudget. 2014. Pg. 3
- ²¹ FY 2014 [Head Start preschool enrollment Data](#); Unpublished FY 2014 state subsidy data, Department of Early Education and Care; Unpublished FY 2014 pre-kindergarten enrollment who are "economically disadvantaged", Department of Elementary & Secondary Education; U.S. Census Bureau, 2011-2013 American Community Survey used to determine number of 3 and 4 year olds living below 200% of poverty.
- ²² See Kids Count Data Center, [Children Ages 3 To 4 Not Attending Preschool By Race](#)
- ²³ Gateway cities or municipalities are defined in [section 3A of chapter 23A of Massachusetts General Laws](#). For more on Gateway Cities, see MassInc - [About the Gateway Cities](#)
- ²⁴ See U.S. Census Bureau, [State and County QuickFacts](#)
- ²⁵ W. Steven Barnett, "[Better Teachers, Better Preschools: Student Achievement Linked to Teacher Qualifications.](#)" National Institute for Early Education Research. 2004. Pg. 3
- ²⁶ See U.S. Bureau of Labor Statistics, May 2014 [State Occupational Employment and Wage Estimates Massachusetts](#)
- ²⁷ See [Child Research Net](#)
- ²⁸ Kenley Branscome, Kate Giapponi, Emma Cohen, & Corrine Corso. "[Massachusetts Child Care Market Price Survey.](#)" 2011. Pg. 10

- ²⁹ See [Kids Count 2014 Data Book](#), Pg. 27
- ³⁰ Luc Schuster. "[Cutting Class: Underfunding the Foundation Budget's Core Education Program.](#)" MassBudget. 2011. Pgs. 23-24
- ³¹ MassBudget. "[Demystifying the Chapter 70 Formula.](#)" 2010. Pg. 3
- ³² Massachusetts Department of Elementary and Secondary Education. "[2013-2014 Selected Populations Report](#)" and "[2013-2014 Class Size by Race/Ethnicity Report](#)"
- ³³ Massachusetts Department of Elementary and Secondary Education. "[2013-2014 Selected Populations Report](#)" and "[2013-2014 Class Size by Race/Ethnicity Report](#)"
- ³⁴ Massachusetts Department of Elementary and Secondary Education. "[2013-2014 Selected Populations Report](#)" and "[2013-2014 Class Size by Race/Ethnicity Report](#)"
- ³⁵ Gary Orfield, John Kucsera & Genevieve Siegel-Hawley. "E Pluribus... Separation: Deepening Double Segregation for More Students" The Civil Rights Project. 2012. Pgs. 6-7
- ³⁶ Massachusetts Department of Elementary and Secondary Education. "[Status of the Massachusetts Educator Workforce: Focus on First Year Teachers.](#)" 2013. Pg. 1
- ³⁷ Massachusetts Department of Elementary and Secondary Education. "[Status of the Massachusetts Educator Workforce: Focus on First Year Teachers.](#)" 2013. Pg. 22
- ³⁸ Massachusetts Department of Elementary and Secondary Education. "[Status of the Massachusetts Educator Workforce: Focus on First Year Teachers.](#)" 2013. Pgs. 26-28
- ³⁹ Massachusetts Department of Elementary and Secondary Education. "[Status of the Massachusetts Educator Workforce: Focus on First Year Teachers.](#)" 2013. Pgs. 30-31
- ⁴⁰ Natasha Ushomirsky and David Williams. "[Funding Gaps 2015: Too Many States Still Spend Less on Educating Students Who Need The Most.](#)" Education Trust. 2015
- ⁴¹ Russell Rumberger & Gregory Palardy. "Does Segregation Still Matter? The Impact of Student Composition on Academic Achievement in High School." Teachers College Record 107.9. 2005. Pg. 20
- ⁴² Massachusetts Department of Elementary and Secondary Education. "[2014 MCAS Report](#)"
- ⁴³ Massachusetts Department of Elementary and Secondary Education. "[2014 MCAS Report](#)"
- ⁴⁴ Massachusetts Department of Elementary and Secondary Education. "[2006 MCAS Report](#)"
- ⁴⁵ Massachusetts Department of Elementary and Secondary Education. "[2006 MCAS Report](#)"
- ⁴⁶ Clifford Adelman. "[Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment.](#)" U.S Department of Education. 1999. Executive Summary
- ⁴⁷ The Nation's Report Card. "2015 [Math](#) & [Reading](#) Assessment. State Score Comparison"
- ⁴⁸ U.S Department of Education National Center for Education Statistics. "[NAEP Data Explorer](#)"
- ⁴⁹ U.S Department of Education National Center for Education Statistics. "[NAEP Data Explorer](#)"
- ⁵⁰ The Nation's Report Card. "[2015 Mathematics State Snapshot Report Massachusetts Grade 8 Public Schools](#)"
- ⁵¹ The Nation's Report Card. "[2015 Mathematics State Snapshot Report Massachusetts Grade 8 Public Schools](#)"
- ⁵² Massachusetts Department of Elementary and Secondary Education. "[2013-2014 Dropout Report](#)" and "[High School Dropouts 2006-07 Massachusetts Public Schools](#)" pg. 4
- ⁵³ Massachusetts Department of Elementary and Secondary Education. "[2013-2014 Dropout Report](#)" and "[High School Dropouts 2006-07 Massachusetts Public Schools](#)" pg. 4
- ⁵⁴ Rennie Center for Education Research & Policy. "[Case Study: Youth Transitions Task Force: A Ten-Retrospective](#)" pg. 1
- ⁵⁵ Rennie Center for Education Research & Policy. "[Case Study: Youth Transitions Task Force: A Ten-Retrospective](#)" pgs. 3-4
- ⁵⁶ Colin Jones. "[Uplifting the Whole Child: Using Wraparound Services to Overcome Social Barriers to Learning](#)" MassBudget. 2014. pg. 8
- ⁵⁷ Colin Jones. "[Uplifting the Whole Child: Using Wraparound Services to Overcome Social Barriers to Learning](#)" MassBudget. 2014. pg. 7
- ⁵⁸ Will Dobbie & Roland G. Fryer Jr. "Are High-Quality Schools Enough to Increase Achievement Among the Poor? Evidence From the Harlem Children's Zone." American Economic Journal: Applied Economics 2011; Laura Martinez & Cheryl D. Hayes. "Measuring Social Return on Investment for Community Schools: A Case Study." The Finance Project. 2013
- ⁵⁹ Allison Gandhi. "Evaluation of the Wraparound Zones Initiative Report Four Supplement: Impact Findings for Year 1 and Year 2 Schools." American Institutes of Research. 2015. Pg. X

- ⁶⁰ Allison Gandhi. "Evaluation of the Wraparound Zones Initiative Report Four Supplement: Impact Findings for Year 1 and Year 2 Schools." American Institutes of Research. 2015. Pgs. 26-27
- ⁶¹ Peter Goonan. "[Gov. Deval Patrick Praises Zanetti School for Rising from Underperforming Status to Top Academic Level.](#)" MassLive/Springfield Republican. 2013
- ⁶² Paul Reville. "[Why We Fail to Address the Achievement Gap.](#)" Education Week. 2015
- ⁶³ Karl L. Alexander, Doris R. Entwisle, & Linda Steffel Olson. "Lasting Consequences of The Summer Learning Gap." American Sociological Review 72.2. 2007. Pgs. 170-171
- ⁶⁴ Colin Jones. "[Beyond the Bell: Options for Increased Learning Time](#)" MassBudget. 2014. pgs. 6-7
- ⁶⁵ Massachusetts Department of Elementary and Secondary Education. "[2014 Report Card –Orchard Gardens](#)" Claire Kaplan, David A. Farbman, Sharon Deich & Heather Clapp Padgett. "Financing Expanded Learning Time in Schools – A Look at Five District Expanded Time Schools. National Center on Time and Learning. Pg. 34
- ⁶⁶ Claire Kaplan, David A. Farbman, Sharon Deich & Heather Clapp Padgett. "Financing Expanded Learning Time in Schools – A Look at Five District Expanded Time Schools. National Center on Time and Learning. Pgs. 34-36
- ⁶⁷ Massachusetts Department of Elementary and Secondary Education. "[2013 Report Card –Orchard Gardens](#)" "[2012 Report Card –Orchard Gardens](#)" "[2011 Report Card –Orchard Gardens](#)"
- ⁶⁸ Claire Kaplan, David A. Farbman, Sharon Deich & Heather Clapp Padgett. "Financing Expanded Learning Time in Schools – A Look at Five District Expanded Time Schools. National Center on Time and Learning. Pg. 35
- ⁶⁹ Colin Jones. "[Beyond the Bell: Options for Increased Learning Time](#)" MassBudget. 2014. pg. 5
- ⁷⁰ Colin Jones. "[Beyond the Bell: Options for Increased Learning Time](#)" MassBudget. 2014. pg. 5
- ⁷¹ Sandy Baum, Jennifer Ma, & Kathleen Payea. "[Education Pays 2013.](#)" College Board. 2013.Pgs. 11; 19
- ⁷² MassBudget Budget Browser. "[Higher Education](#)"
- ⁷³ Massachusetts Department of Higher Education. "[Community Colleges Annual Full-Time Enrollment Credit Headcount](#)" and "[State University Annual Full-Time Enrollment Credit Headcount.](#)" UMass President's Office of Institutional Research "[Student Profile Fall 2014.](#)" Pg. 1; Budget data from MassBudget Budget Browser "[Higher Education](#)"
- ⁷⁴ Anastasia Wilson. "The Causes and Consequences of Mounting Student Debt in Massachusetts." UMass Amherst Department of Economics. 2015. Pgs. 6-7
- ⁷⁵ Anastasia Wilson. "The Causes and Consequences of Mounting Student Debt in Massachusetts. UMass Amherst Department of Economics. 2015. Pg. 27
- ⁷⁶ Anastasia Wilson. "The Causes and Consequences of Mounting Student Debt in Massachusetts. UMass Amherst Department of Economics. 2015. Pg. 27
- ⁷⁷ Institute for College Access & Success. "[Student Debt of Graduating Seniors: Massachusetts Public.](#)" 2015
- ⁷⁸ Mark Huelsman. "[The Debt Divide: The Racial and Class Bias Behind the 'New Normal' of Student Borrowing,](#) Demos. 2015. Pgs. 8-9
- ⁷⁹ U.S Department of Education, National Center for Education Statistics. [IPEDS database](#)
- ⁸⁰ U.S Department of Education, National Center for Education Statistics. [IPEDS database](#)
- ⁸¹ U.S Department of Education, National Center for Education Statistics. [IPEDS database](#)
- ⁸² U.S Department of Education, National Center for Education Statistics. [IPEDS database](#)
- ⁸³ Tennessee Student Assistance Corporation. "[Tennessee Promise: About](#)" Richard Read "[Oregon Embraces Free Community-College Tuition Ahead of Other States, Outpacing Obama Proposal](#)" The Oregonian/Oregon Live. 2015
- ⁸⁴ The White House. "[Fact Sheet – White House Unveils America's College Promise Proposal: Tuition-Free Community College for Responsible Students.](#)" 2015
- ⁸⁵ Luc Schuster & Colin Jones. "[Debt-Free Public Higher Education: What Would it Take?](#)" MassBudget. 2015. Pg. 2
- ⁸⁶ U.S. Census Bureau, American Community Survey 3 year estimates, 2005-2013, and Census 2000 Summary File 4, Matrices PCT35, PCT36, PCT38, PCT43, PCT45, PCT47, PCT49, PCT61, PCT64, PCT67, and PCT70.
- ⁸⁷ Massachusetts Department of Higher Education. "Graduation and Success Rate Metrics." Data received on request from the Department of Higher Education. November 2015.
- ⁸⁸ Massachusetts Department of Higher Education. "Graduation and Success Rate Metrics." Data received on request from the Department of Higher Education. November 2015.

- ⁸⁹ Massachusetts Department of Higher Education. "[Degrees of Urgency: Why Massachusetts Needs More College Graduates Now](#). 2014. pg. 41
- ⁹⁰ Massachusetts Department of Higher Education. "Graduation and Success Rate Metrics." Data received on request from the Department of Higher Education. November 2015
- ⁹¹ Massachusetts Department of Higher Education. "[The Vision Project: A Public Agenda for Higher Education in Massachusetts](#)." Pgs. 12-13
- ⁹² MassBudget Jobs and Workforce Budget. "[STEM Starter Academies](#). 2015
- ⁹³ U.S. Department of Education, National Center for Education Statistics. [IPEDS database](#)
- ⁹⁴ Center for Community College Student Engagement. "[A Matter of Degrees: Promising Practices for Community College Student Success](#)." University of Texas Austin, Community College Leadership Program. 2012. Pg. 5
- ⁹⁵ Massachusetts Department of Higher Education. "[STEM Starter Academy: A Unified Approach to Building Capacity](#)." Pg. 8
- ⁹⁶ Lawrence Mishel. "[Causes of Wage Stagnation](#)." Economic Policy Institute. 2015. Pgs. 2; 3; 4
- ⁹⁷ Lawrence Mishel. "[Causes of Wage Stagnation](#)." Economic Policy Institute. 2015. Pg. 3
- ⁹⁸ Austin Algenon. "[A Jobs-Centered Approach to African American Community Development: The Crisis of African American Unemployment Requires Federal Intervention](#)." Economic Policy Institute. 2011. Pgs. 2-3
- ⁹⁹ See MassBudget's [Jobs & Workforce Budget](#)
- ¹⁰⁰ Mariko Chang. *Shortchanged: Why Women Have Less Wealth and What Can Be Done About It*. 2010. N.Y.: Oxford University Press. Pgs. 3-4
- ¹⁰¹ Economic Policy Institute. [The State of Working America](#). 12th Edition. (see Wealth section) 2014. Pg. 382
- ¹⁰² Rebecca Tippet, Avis Jones-DeWeever, Maya Rockey Moore, Darrick Hamilton, & William Darity. "[Beyond Broke: Why Closing the Racial Wealth Gap is a Priority for National Economic Security](#)." Report prepared by Center for Global Policy Solutions and The Research Network on Ethnic and Racial Inequality at Duke University. Pgs. 7-8
- ¹⁰³ Ana Patricia Muñoz, Marlene Kim, Mariko Chang, Regine Jackson, Darrick Hamilton, & William A. Darity Jr. "[The Color of Wealth in Boston](#)." The Federal Reserve Bank of Boston. 2015. Pg. 20
- ¹⁰⁴ Ana Patricia Muñoz, Marlene Kim, Mariko Chang, Regine Jackson, Darrick Hamilton, & William A. Darity Jr. "[The Color of Wealth in Boston](#)." The Federal Reserve Bank of Boston. 2015. Pg. 20
- ¹⁰⁵ Historical Shift from Explicit to Implicit Policies Affecting Housing Segregation in Eastern Massachusetts, Fair Housing Center of Greater Boston. See "[1934-1968: FHA Mortgage Insurance Requirements Utilize Redlining](#)."
- ¹⁰⁶ See [Home Owners Loan Corporation Map](#) of Boston from the 1930s shows redlining captured from the site [Urban Oasis](#).
- ¹⁰⁷ For a full discussion of these policies see Rothstein, Richard "[The Making of Ferguson: Public Policies at the Root of its Troubles](#)", October 15, 2014. While this article speaks specifically to Ferguson, Missouri, many of the practices described here were employed throughout the United States.
- ¹⁰⁸ Jim Campen. "[Changing Patterns XIV](#)." Mauricio Gastón Institute for Latino Community Development and Public Policy University of Massachusetts, Boston. 2008. Pgs. 6-9
- ¹⁰⁹ Massachusetts Department of Housing and Community Development. "[Analysis of Impediments to Fair Housing Choice: Access to Opportunity in the Commonwealth](#)." 2014. Pg. 121
- ¹¹⁰ See CFED, Assets & Opportunity Scorecard, [Homeownership by Race](#), 2013
- ¹¹¹ [Center for Enterprise Development Assets & Opportunity Scorecard](#), 2015
- ¹¹² Center for Enterprise Development Assets & Opportunity Scorecard, [Business Ownership By Race](#). 2015. See also the [Massachusetts scorecard](#).
- ¹¹³ See MassBudget's Job & Workforce Budget, [Massachusetts Small Business Development Center at UMass](#)
- ¹¹⁴ See Commonwealth of Massachusetts, Governor Baker [press release August 2015](#).
- ¹¹⁵ Center for Enterprise Development Assets & Opportunity Scorecard. [Financial Assets & Income](#). 2015. Pg. 1
- ¹¹⁶ Demos and Institute for Assets & Social Policy. "[The Racial Wealth Gap: Why Policy Matter](#)." Pg. 14
- ¹¹⁷ See the City of Boston, Department of Neighborhood Development's [Programs and Services for Homebuyers](#)
- ¹¹⁸ Massachusetts Housing Partnership. [Press release June 2013](#)
- ¹¹⁹ Demos and Institute for Assets & Social Policy. "[The Racial Wealth Gap: Why Policy Matter](#)." Pgs. 14-15
- ¹²⁰ Demos and Institute for Assets & Social Policy. "[The Racial Wealth Gap: Why Policy Matter](#)." Pgs. 14-15
- ¹²¹ See MassBudget's [State of Working Massachusetts Poverty Section](#)

- ¹²² See Kids Count Data Center, [Children living in areas of concentrated poverty by race and ethnicity](#)
- ¹²³ Brookings Institute, [Concentrated Poverty](#)
- ¹²⁴ MassBudget. "[From Poverty to Opportunity: The Challenge of Building a Great Society.](#)" 2014. Pg. 14
- ¹²⁵ U.S. Census Bureau, [Poverty – Experimental Measures](#)
- ¹²⁶ U.S. Census Bureau. "[The Supplemental Poverty Measure: 2014.](#)" 2015
- ¹²⁷ Center on Budget and Policy Priorities. "[Safety Net More Effective Against Poverty Than Previously Thought: Correcting for Underreporting of Benefits Reveals Stronger Reductions in Poverty and Deep Poverty in All States.](#)" 2015. Pg. 8
- ¹²⁸ MassBudget. "[From Poverty to Opportunity: The Challenge of Building a Great Society.](#)" 2014. Pg. 15
- ¹²⁹ MassBudget. "[From Poverty to Opportunity: The Challenge of Building a Great Society.](#)" 2014. Pg. 15
- ¹³⁰ Nicole Rodriguez. "[A \\$15 Minimum Wage – Effects and Historical Context.](#)" MassBudget. 2015
- ¹³¹ Analysis provided by the Institute for Women’s Policy Research analysis of the 2010-2012 National Health Interview Survey (NHIS) and 2012 IPUMS American Community Survey (ASC).
- ¹³² Nicole Rodriguez. "[FAQ: Paid Family & Medical Leave.](#)" 2015
- ¹³³ U.S. Department of Labor. "[Family and Medical Leave in 2012.](#)" See Executive Summary. Pg. i
- ¹³⁴ U.S. Department of Labor, Bureau of Labor Statistics. [National Compensation Survey](#), Table 32 Leave Benefits. 2014
- ¹³⁵ See Kids Count Data Center, [Children Without Health Insurance](#)
- ¹³⁶ See, for example, *U.S. News and World Report*, [U.S. News Best Children’s Hospitals 2015-2016](#) and [U.S. News Best Hospitals 2015-2016](#)
- ¹³⁷ Kurt Wise & Nancy Wagman, Mass. Budget and Policy Center, "[Large gains in health coverage, some growth in incomes, big challenges remain.](#)" September 2015
- ¹³⁸ See data at U.S. Census Bureau, American FactFinder, estimates from Table B27001B. Data not available for states with small sample sizes.
- ¹³⁹ See data at U.S. Census Bureau, American FactFinder, estimates from Table B27001I. Data not available for states with small sample sizes.
- ¹⁴⁰ See Sharon K. Long & Thomas H. Dimmock, [The Geography of Uninsurance in Massachusetts, 2009-2013](#), Appendix F, for the Blue Cross Blue Shield of Massachusetts Foundation, April 2015
- ¹⁴¹ Taken from [Leveraging the Social Determinants of Health: What Works?](#), p.2, prepared for the Blue Cross Blue Shield of Massachusetts Foundation by Lauren A. Taylor, Caitlin E. Coyle, Chima Ndumele, Erika Rogan, Maureen Canavan, Leslie Curry, & Elizabeth H. Bradley, June 2015
- ¹⁴² See, for example, research in "[The Enduring Challenge of Concentrated Poverty in America: Case Studies from Communities Across the U.S.](#)," Brookings Institution and the Federal Reserve System, 2008, Pgs. 11-15
- ¹⁴³ Jack P. Shonkoff, "[Leveraging the biology of adversity to address the roots of disparities in health and development.](#)" *Proceedings of the National Academy of Sciences*, Edited by Gene E. Robinson, University of Illinois, Urbana, IL, and approved August 2012
- ¹⁴⁴ M. Hack, N.K. Klein, H.G. Taylor, "[Long-term developmental outcomes of low birth weight infants.](#)" *Future Child*, 1995 Spring; 1995 5(1). Pgs. 176-96
- ¹⁴⁵ Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health, [Massachusetts Births 2013](#), Table 2, December 2014. See also [Birth Reports 2001-2012](#)
- ¹⁴⁶ Boston Public Health Commission, [Closing the Gap: Decline in Black Infant Mortality rates in Boston, 2001-2012](#), August 2014. Pg. 4
- ¹⁴⁷ See data at U.S. Dept. of Agriculture, Food and Nutrition Service, "[Monthly Data – State Level Participation by Category and Program Costs.](#)"
- ¹⁴⁸ Hilary W. Hoynes, Marianne E. Page, and Ann Huff Stevens, "[Is a WIC Start a Better Start? Evaluating WIC’s Impact on Infant Health Using Program Introduction.](#)" NBER Working Paper No. 15589, December 2009, JEL No. I1,I38. Pg. 2
- ¹⁴⁹ See MassBudget Children’s Budget, [Women, Infants, and Children \(WIC\)](#) and [WIC Program \(Manufacturer Rebates Retained Revenue\)](#)
- ¹⁵⁰ See [Centers for Disease Control and Prevention](#)
- ¹⁵¹ See Environmental Protection Agency, "[EPA Takes Final Step in Phaseout of Leaded Gasoline.](#)" January 29, 1996.

- ¹⁵² See research cited in Needleman, Herbert L., et al. "[The long-term effects of exposure to low doses of lead in childhood: an 11-year follow-up report.](#)" *New England Journal of Medicine* 322.2 (1990): Pgs. 83-88
- ¹⁵³ See Jessica Wolpaw Reyes, "[Lead Exposure and Behavior: Effects on Antisocial and Risky Behavior Among Children and Adolescents,](#)" Working Paper, National Bureau of Economic Research, August 2014, Pg. 7
- ¹⁵⁴ Data available at [Screening and Prevalence of Childhood Blood Lead Levels for Children 9 months to less than 4 years of age by community](#), Childhood Lead Poisoning Prevention Program, Mass. Department of Public Health
- ¹⁵⁵ David E. Jacobs, Robert P. Clickner, Joey Y. Zhou, Susan M. Viet, David A. Marker, John W. Rogers, Darryl C. Zeldin, Pamela Broene, & Warren Friedman, "[The Prevalence of Lead-Based Paint Hazards in U.S. Housing,](#)" *Environmental Health Perspective* September 2002
- ¹⁵⁶ See MassBudget's Children's Budget, [Blood Lead Testing](#)
- ¹⁵⁷ See MassBudget's Children's Budget, [Tax Break for Removal of Lead Paint](#)
- ¹⁵⁸ Data available at [Screening and Prevalence of Childhood Blood Lead Levels for Children 9 months to less than 4 years of age by community](#), Childhood Lead Poisoning Prevention Program, Mass. Department of Public Health.
- ¹⁵⁹ Communication from Alicia Fraser, Assistant Director of Environmental Epidemiology, Bureau of Environmental Health, Department of Public Health, August 31, 2015
- ¹⁶⁰ See [Mass. Executive Office of Energy and Environmental Affairs map](#) of brownfields locations.
- ¹⁶¹ See Mass. Executive Office of Energy and Environmental Affairs, "[Environmental Justice Policy.](#)"
- ¹⁶² Beverly Ford, New England Center for Investigative Reporting, "[Toxic Sites Threaten health, Environment in MA,](#)" August 12, 2012
- ¹⁶³¹⁶³ Christina M. Pacheco, J.D., corresponding author Christina E. Ciaccio, M.D., Niaman Nazir, M.B.B.S., M.P.H., Christine M. Daley, Ph.D., S.M., Anita DiDonna, Won S. Choi, Ph.D., M.P.H., Charles S. Barnes, Ph.D., & Lanny J. Rosenwasser, M.D., "[Homes of low-income minority families with asthmatic children have increased condition issues,](#)" *Allergy Asthma Proc.* 2014 Nov-Dec; 35(6): Pgs. 467-474
- ¹⁶⁴ Mass. Dept. of Public Health, [A Profile of Health Among Massachusetts Middle and High School Students, 2013: Results from the Massachusetts Youth Health Survey](#), Table 21. Because of sample sizes, these numbers have a fairly large margin of error. The 95% confidence interval for the estimate for the percentage of Blacks middle schoolers who have been told by a doctor they have asthma is 18.9-29.0%, for Hispanics it is 25.9-35.4%, overall is 21.0-24.6%.
- ¹⁶⁵ See Kids Count Data Center, "[Children Living in Areas of Concentrated Poverty by Race and Ethnicity.](#)"
- ¹⁶⁶ See Boston Children's Hospital, *News and Events Insights*, "[Majority of obese teens already obese before adolescence.](#)"
- ¹⁶⁷ See U.S. Centers for Disease Control, "[Health Effects of Childhood Obesity.](#)"
- ¹⁶⁸ See U.S. Centers for Disease Control, "[Health Effects of Overweight and Obesity.](#)"
- ¹⁶⁹ See U.S. Dept. of Agriculture, [Food Access Research Atlas.](#)
- ¹⁷⁰ Jennifer L. Harris, John A. Bargh, and Kelly D. Brownell, [Priming Effects of Television Food Advertising on Eating Behavior](#) : *Health Psychology*, American Psychological Association. 2009
- ¹⁷¹ "[Targeting Food and Beverage TV Ads at Minority and Low Income Children: Bridging the Gap.](#)" African American Collaborative Obesity Research Network. Pg. 1
- ¹⁷² Mass. Dept. of Public Health, [A Profile of Health Among Massachusetts Middle and High School Students, 2013: Results from the Massachusetts Youth Health Survey](#), Table 18. Because of sample sizes, these numbers have a fairly large margin of error. The 95% confidence interval for obesity rates in middle school were 11.4-22.3% for Black students, 9.9-17.6% for Hispanic students, and 7.4-10.4% overall.
- ¹⁷³ Mass. Dept. of Public Health, [A Profile of Health Among Massachusetts Middle and High School Students, 2013: Results from the Massachusetts Youth Health Survey](#), Table 18. Because of sample sizes, these numbers have a fairly large margin of error. The 95% confidence interval for obesity rates in high school were 9.6-18.4% for Black students, 12.8-20.7% for Hispanic students, and 7.9-11.4% overall.
- ¹⁷⁴ See Mass. Dept. of Agriculture, "[Using Your SNAP Benefits at the Farmers' Market.](#)"
- ¹⁷⁵ See U.S. Environmental Protection Agency, [President's Task Force on Environmental Health and Safety Risks to Children](#)