

MASSACHUSETTS LAST: IMPACTS OF THE TRUMP BUDGET ON THE COMMONWEALTH



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Introduction

On March 16, 2017, President Donald Trump released his first budget outline. A document that is dangerous and disastrous, it contradicts the core values of Massachusetts. This budget robs the defenseless to pay for defense and is a direct assault on the economy of the Commonwealth.

The budget represents a wholesale reversal of the policies and programs that create opportunities and a healthier, fairer, cleaner and more prosperous future for the people of Massachusetts and all Americans.

In Massachusetts, we produce more federal revenue than we receive. Yet our innovative businesses, universities, institutions, and non-profits are some of the most successful in the nation because they fight for, and win, competitive federal funding opportunities.

At the same time, our competitive spirit never blinds us to the care that we must provide, especially for the most vulnerable in our communities. But the poor, seniors, working families, the sick and suffering, our students and workers – they would all suffer as a result of this budget's most extreme cuts.

With Massachusetts's business plan focused on investments in health care, education, scientific research and innovation, the impacts of the Trump administration "America First" budget would deliver a devastating blow to the Commonwealth.

Research and Innovation

Health Care

National Institutes of Health (NIH)

The National Institutes of Health is the nation's premier research arm, funding basic science research across the country. Massachusetts leads the nation in per capita NIH funding, with 190 institutions receiving funds from the agency in 2016. NIH is not only an economic driver in the Commonwealth, but a beacon of hope for families across the country waiting for the next life-saving treatment or cure for a myriad of devastating diseases, including Alzheimer's, Parkinsons, and cancer.

Donald Trump's proposed budget slashes this hope by cutting nearly \$6 billion from the NIH budget, an 18 percent reduction. An 18 percent reduction for Massachusetts could mean:

- **\$463 million less in NIH funding**
- **34 fewer NIH-funded institutions**
- **905 fewer NIH grants awarded**
- **\$14.4 million less in funds to train the next generation of science researchers**
- **17 fewer NIH-supported clinical trials could start in 2018**

Fogarty International Center

The Fogarty International Center at the NIH advances global health research and training. The Center funds 400 current projects across the United States, where recipients collaborate with colleagues in the developing world to achieve scientific objectives. These projects connect Fogarty to more than 100 countries and involve 5,000 scientists in the U.S. and abroad.

Dozens of active grants from the Fogarty International Center are currently affiliated with an institution in Massachusetts. All of these could be eliminated under President Trump's plan.

Centers for Disease Control and Prevention (CDC)

The Centers for Disease Control and Prevention is the silent warrior in our fight to protect Americans' health, tracking disease burden, promoting prevention and education, conducting epidemiological research, and responding to domestic and global threats to our health and wellness. Massachusetts universities, hospitals, and public health institutions receive tens of millions of dollars in annual grants from the CDC to conduct research on a variety of issues.

The Trump budget reforms involving the CDC could put the more than **\$95 million** in Massachusetts grants at risk. Research funded by these grants -- on antibiotic resistance, Ebola response and preparedness, food safety, prescription drug overdose, and school health -- could be in danger of losing their funding.

Business/Science/Research

National Science Foundation (NSF)

The National Science Foundation supports both basic research and education in the non-medical sciences and engineering. The NSF is one of the major sources of federal support for U.S. university research, especially in certain fields such as mathematics and computer science. It is also responsible for significant shares of the federal science, technology, engineering, and mathematics (STEM) education program portfolio and federal STEM student aid and support.

The competition for NSF grants is already fierce and cutting its budget will stifle innovation and the development of young scientists and new research. Last year NSF awarded **\$448.7 million** in grants to **115 universities, research institutions and businesses** in Massachusetts.

The Trump budget puts the NSF into a category that would threaten 9.8 percent cuts to the agency. A 9.8 percent cut in funding to Massachusetts could mean the Bay State's institutions lose out on upwards of **\$43 million** and the additional dollars that funding leverages.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)

The SBIR and STTR programs award competitive contracts to small businesses in Massachusetts and across the United States to develop innovative technologies that address needs to keep us safer, healthier and more energy independent. Since the program began, Massachusetts companies have received more than 20,000 research grants. Massachusetts is the **highest per-capita winner of SBIR funding** in the nation in part because of our ecosystem of strong research institutions, dynamic workforce, investment funding and culture of innovation.

Since SBIR and STTR funding is allocated by a percentage of the total extramural R&D budgets of 11 federal agencies, cuts to research and development will adversely affect the SBIR and STTR programs as a whole and the Massachusetts companies that rely on the programs. Drastic cuts at the Department of Energy (DoE) (the third largest SBIR agency) and NIH (the second largest SBIR agency) will **negatively affect Massachusetts SBIR and STTR firms and the universities and research institutions that partner with SBIR and STTR firms**. According to a recent report by the National Academies on the SBIR and STTR programs at the DoE and NIH 43 percent to 67 percent of SBIR and STTR firms have a link to a university or research institution, including many in Massachusetts.

Manufacturing Extension Partnership (MEP)

The MEP is nationwide network of centers to assist small and mid-sized manufacturers to create and retain jobs, improve efficiencies, and minimize waste through process improvements and to increase market penetration with innovation and growth strategies. Massachusetts is home to one of these partnerships called MassMEP, located in Worcester. Since its establishment, MassMEP has been responsible for the direct creation of over **2,300 jobs** and the retention of **over 6,000** more.

Trump's elimination of the Manufacturing Extension Partnership program on the federal level could mean the loss of MassMEP along with many of the jobs created and retained by the partnership. These cuts could mean a significant reduction in the **\$5.6 billion** in economic output that the MassMEP has been responsible for creating and retaining.

Overseas Private Investment Corporation (OPIC)

The Overseas Private Investment Corporation helps ensure a level playing field for U.S. companies competing with foreign companies for business opportunities in emerging markets. Since its founding, OPIC has assisted U.S. companies through more than 4,300 investments worth more than \$225 billion.

Since its establishment in 1971, OPIC has committed **\$3.6 billion** in financing and insurance to projects sponsored by Massachusetts companies, supporting nearly **10,000 U.S. jobs**, including 757 local jobs in Massachusetts, while generating more than **\$2.6 billion in U.S. exports** and an estimated **\$287 million** in procurement of goods and services from Massachusetts.

Clean Energy and Environment

Environmental Protection Agency (EPA) Enforcement

The Environmental Protection Agency's Office of Enforcement and Compliance Assurance targets pollution that can cause serious harm to the health of American communities. It enforces important environmental laws and provides for the service of environmental justice by protecting our most vulnerable communities. The Trump budget cuts funding for EPA's enforcement of environmental protection violations by 24 percent.

Over the past year in Massachusetts, the EPA has uncovered **152 environmental violations** for things such as violating clean air or toxic substance regulations. **104 of those environmental violations** have not yet been fully corrected. The cuts in the Trump's budget will mean that even more violations will go unnoticed and uncorrected across the Commonwealth.

EPA Superfund

The EPA Superfund manages the cleanup of hazardous waste sites and responds to environmental emergencies across the United States. It focuses on making a visible and lasting difference in communities, ensuring the health of citizens is protected near the sites of environmental emergencies, oil spills and natural disasters.

From Plymouth to Pittsfield, there are **34 active or proposed toxic superfund sites** in Massachusetts. A 30 percent cut to the Superfund applied to Massachusetts could mean **ten toxic sites** lose access to critical cleanup services.

DOE Office of Science

The Department of Energy's Office of Science conducts basic research in six overarching program areas: advanced scientific computing research, basic energy sciences, biological and environmental research, fusion energy sciences, high-energy physics, and nuclear physics. The office supports research at more than 300 universities and ten of the nation's 17 national labs. As an innovation and research hub for our nation, Massachusetts wins a disproportionate share of the competitive funding awarded by this office.

A budget cut of 17 percent would disproportionately affect Massachusetts. Last year, Bay State researchers won **nearly \$82 million**—nine percent of the total amount awarded nationwide by the Office of Science. Assuming our researchers continue to perform at this high level, our state could lose **\$14 million** in research funding from this source alone.

DOE Advanced Research Projects Agency-Energy (ARPA-E)

The Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) supports transformational energy technology research projects with the mission of overcoming long-term,

high-risk technological barriers to the development of energy technologies. ARPA-E invests in innovative ideas from academia, private industry, national labs, start-up companies, and small businesses, providing a total of \$1.5 billion in awards to approximately 580 projects since the program was created in 2009. Last year, Massachusetts won a disproportionate share of the competitive funding awarded by ARPA-E.

Elimination of the program could put **six innovative Massachusetts companies and research institutions** at risk of losing the **\$16.4 million** they won in the last two years.

National Oceanic Atmospheric Administration (NOAA) Sea Grant Program

The National Oceanic Atmospheric Administration Sea Grant Program invests in high-priority research, addressing issues such as population growth and development in coastal communities; preparation and response to hurricanes, coastal storms and tsunamis; understanding our interactions with the marine environment; fish and shellfish farming; seafood safety; and fisheries management.

In Massachusetts, Sea Grant programs based at MIT and the Woods Hole Oceanographic Institution, support economic development in and protection of our coastal communities. For example, the Woods Hole Sea Grant works with more than **300 shellfish growers** to support the growth of the industry and run important **water quality** and **disease-monitoring networks**. The Massachusetts Sea Grant programs also help coastal communities prepare and protect themselves from the impacts of climate change like **sea-level rise** and **extreme storms**. On Cape Cod, Sea Grant helped create the first of its kind regional program to reduce flooding risk and lower the cost of flood insurance in towns with limited resources.

The Trump Budget plans to completely eliminate these grants and hinder Massachusetts institutions they support. Massachusetts stands to lose nearly **\$4 million** in funding and the **\$8 of leveraged economic benefit that accompanies every \$1 of Sea Grant funding**.

Education

Jobs Corps

Jobs Corps, founded by Sargent Shriver in 1964, serves as a no-cost education and vocational training program administered by the Department of Labor that helps people ages 16 - 24 improve the quality of their lives through vocational and academic training. Job Corps works to train 60,000 students at 125 centers across the United States.

President Trump's budget reduces important funding for Jobs Corps that could impact or lead to the closure of **three Jobs Corps facilities** in North Grafton, Devens, and Chicopee, Massachusetts.

Supporting Effective Instruction State Grants

Investing in our students means ensuring that they have the most effective teachers. Massachusetts uses this funding statewide to strengthen curriculum and instruction, improve educator effectiveness, and use data effectively to support student achievement. The Massachusetts Department of Elementary and Secondary Education has highlighted multiple areas where these grants, provided under Title II-A of the Every Student Succeeds Act, are utilized, including high-quality professional development activities for teachers and principals, and initiatives that assist in recruiting and retaining effective teachers and administrators, particularly in underperforming school districts.

President Trump has proposed the elimination of this program, which will hurt the students, teachers, and school administrators who most depend on it. Boston Public Schools alone received **\$5.7 million** through this grant last year, serving **56,000 students**.

21st Century Community Learning Centers (21st CCLC)

The 21st CCLC grant programs are designed to improve student academic outcomes through before- and after-school and summer programs that continue education outside of school hours, keeping students safe, and physically and mentally engaged. The Massachusetts Department of Elementary and Secondary Education directs this funding to support programming designed to help close proficiency/opportunity gaps, increase student engagement, support social and emotional learning, and promote college and career readiness and success.

If President Trump eliminates this program, Massachusetts schools will lose **\$12 million** and the students who rely on these programs will face greater hardships.

National Endowment for the Arts (NEA)

The National Endowment for the Arts gives millions of dollars to Massachusetts each year through grants that support a wide variety of arts and cultural programs, productions, and performances throughout the whole state. The Double Edge Theatre in Ashfield, the Working Waterfront Festival in New Bedford, the Fitchburg Art Museum, Jacob's Pillow Dance Festival

in the Berkshires, the Museum of Fine Arts in Boston, and even the Boston Symphony Orchestra are only a few of the museums, events, programs, and institutions that rely on funding from the NEA.

The President's proposed budget eliminates the entire NEA, which provides **\$3.5 million** to Massachusetts each year. This funding affects Massachusetts citizens ranging from elementary school students to professional musicians, artists, and actors at the top of their fields.

National Aeronautic and Space Administration (NASA) Office of Education and Earth Science Grants

Each year, the National Aeronautic and Space Administration Office of Education leverages its \$115 million budget to reach students and teachers through 50 projects across the country, engaging them in science and technology. It runs the Space Grant Program, which gives college students a grant to conduct NASA-related research.

Elimination of the Office of Education and the Earth Science Grants means that **Harvard, MIT, Boston University, and students and scientist across Massachusetts** lose **millions of dollars** of research funding every year. Harvard University alone will receive approximately **\$9 million** in earth science grants this year. Not only will our students and scientists lose this critical funding, but the potential results of that research will be lost to society.

Corporation for Public Broadcasting (CPB)

Federal funding for the Corporation for Public Broadcasting helps provide high-quality, informative, and educational programming produced by locally owned and operated public television and radio stations reaching virtually every household in our country. More than 95 million Americans watch their local Public Broadcasting Service (PBS) station every month, while nearly 29 million Americans listen to National Public Radio (NPR) programming and newscasts every week. CPB, with fairly modest federal investment, creates a national footprint of nearly 1,500 locally-owned and operated public television and public radio stations across the country.

Donald Trump's elimination of the CPB could create a content deficit where the public no longer has access to enriching educational, civic, and entertainment shows for all Americans, regardless of ethnic, racial or socio-economic background. In Massachusetts, the CPB supports local programming with over **\$10 million** in local grants for TV, radio, and digital forms of communication.

Transportation

The Transportation Investment Generating Economic Recovery (TIGER) Grants

The Transportation Investment Generating Economic Recovery grant program provides federal funding for surface transportation projects (i.e. bridges, transit facilities, rail, harbor infrastructure, etc.) that will improve the nation's economic growth. Since 2009, the Commonwealth of Massachusetts has received more than \$150 million of TIGER funding to undertake critical transportation infrastructure projects.

The elimination of this program would mean that Massachusetts could lose **tens of millions** of dollars in federal funding to improve commuter rail service, replace dangerous freight rail bridges, and alleviate congestion on our roadways.

U.S Army Corps of Engineers (Corps)

The U.S. Army Corps of Engineers (Corps) is an agency in the Department of Defense with both military and civil works responsibilities. The Corps improves our nation's resilience and promotes the safe and swift transport of cargo by building water resource projects (i.e. harbor deepening, shipping channel dredging, beach renourishment, and aquatic restoration projects).

A 16 percent budget cut, amounting to \$1 billion, makes it much less likely that crucial Massachusetts's projects, like **the \$200 million Boston Harbor Dredging Project** and the **\$35 million Muddy River Project**, will receive federal funding.

Amtrak

With approximately 56 Amtrak trains traveling through Massachusetts every day, the people of Massachusetts heavily rely on Amtrak to fulfill their transportation needs. In Fiscal Year 2016 alone, nearly **3.5 million passengers** boarded or departed an Amtrak train in Massachusetts.

A long distance rail **line runs through the heart of Massachusetts**, connecting Boston, Worcester, Framingham and Pittsfield and providing Massachusetts constituents with high-quality rail access to major destinations like Chicago and Cleveland. Without these subsidies, **affordable rail service may no longer be available** to the thousands of Massachusetts residence seeking to use this line for long-distance trips.

Social Services

Low Income Home Energy Assistance Program (LIHEAP)

The Low Income Home Energy Assistance Program keeps our most vulnerable citizens safe and healthy by helping meet their home energy needs. It ensures that families are warm in the winter and cool in the summer by providing assistance with bill payments, energy crises and weatherization services.

Elimination of this program will cost the Commonwealth roughly **\$149 million** and leave nearly **200,000 Massachusetts families** out in the cold.

Weatherization Assistance Program

The Department of Energy Weatherization Assistance Program provides grants to states to improve the energy efficiency of the homes of low-income families. State governments, in turn, contract with local governments and nonprofit agencies to provide weatherization services to those in need using the latest technologies for home energy upgrades. Since the program began in 1976, it has helped improve the lives of more than seven million families nationwide by reducing their energy bills.

Massachusetts would be hit hard by elimination of the program and would face a loss of approximately **\$6 million** in Weatherization Assistance Program funding. Eliminating this funding next year would mean that—at an average cost of \$4,500 to weatherize a home—the cut could hurt more than **1,000 low-income families** in the Bay State.

Legal Services Corporation (LSC)

The Legal Services Corporation is the single largest funder of civil legal aid for low-income Americans in the nation. LSC-funded programs help people who live in households with annual incomes at or below 125 percent of the federal poverty guidelines. Clients come from every ethnic group and every age group and live in rural, suburban, and urban areas. They are the working poor, veterans, homeowners and renters, families with children, farmers, people with disabilities, and the elderly. Women -- many of whom are struggling to keep their children safe and their families together -- comprise 70 percent of clients.

Elimination of the LCS will leave almost **26,000 low-income Massachusetts residents** without the legal representation they need.

Corporation for National and Community Service (CNCS)

Each year, millions of individuals of all ages and backgrounds help meet local needs through a wide array of service opportunities through the Corporation for National and Community Service's core programs: AmeriCorps, Senior Corps, and the Social Innovation Fund. These programs and others, such as the Volunteer Generation Fund, support projects in six priority

areas: disaster services, economic opportunity, education, environmental stewardship, healthy futures, and veterans and military families.

The elimination of CNCS will impact more than **2,500 AmeriCorps** members and **5,600 Senior Corps** volunteers who are meeting local needs, strengthening communities, and increasing civic engagement through national service in Massachusetts. Massachusetts will lose more than **\$36,650,000** from CNCS in support of Massachusetts communities through national service.

Community Services Block Grant (CSBG)

Community Services Block Grants provide a vital lifeline for our nation's low-income households. This funding is the federal government's comprehensive approach to addressing the needs of vulnerable citizens and provides critical employment services, education, and housing assistance to as many as 20.7 million low-income, unemployed, or disabled American. In Massachusetts, 23 designated Community Action Agencies (CAAs) – private nonprofit entities representing appointed leaders from the private sector, public officials, and the community – provide these services to citizens across the Commonwealth using federal funds.

Eliminating the CSBG program would cut off **\$16 million** in federal funding to Massachusetts Community Action Agencies. Services provided to **625,142 low-income individuals** across the Commonwealth would be in jeopardy, including 77,940 people with disabilities, 126,519 seniors, and 187,922 children.

Community Development Block Grants (CDBG)

Community Development Block Grants fund local community development initiatives that support jobs, housing, economic development, neighborhood revitalization, and other community development activities. CDBGs are one of the most flexible federal sources of funding that municipalities have at their disposals.

Communities across the Commonwealth rely on over **\$91 million** in vital CDBG funds every year. The loss of this critical funding under President Trump's budget would devastate our local cities and towns.

HOME Investment Partnerships Program (HOME)

The HOME Investment Partnerships Program is the primary federal funding source that allows states and local governments to create and sustain affordable housing for low-income individuals and families. The HOME program partners localities and nonprofit groups like Habitat for Humanity to build, buy, and repair affordable housing.

If the HOME program is cut, Massachusetts stands to lose more than **\$24 million** a year in funding.