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# BOSTON AS A LEADER IN NATIONAL INSTITUTES OF HEALTH AWARDS OVER \$21 BILLION IN 16 CONSECUTIVE YEARS

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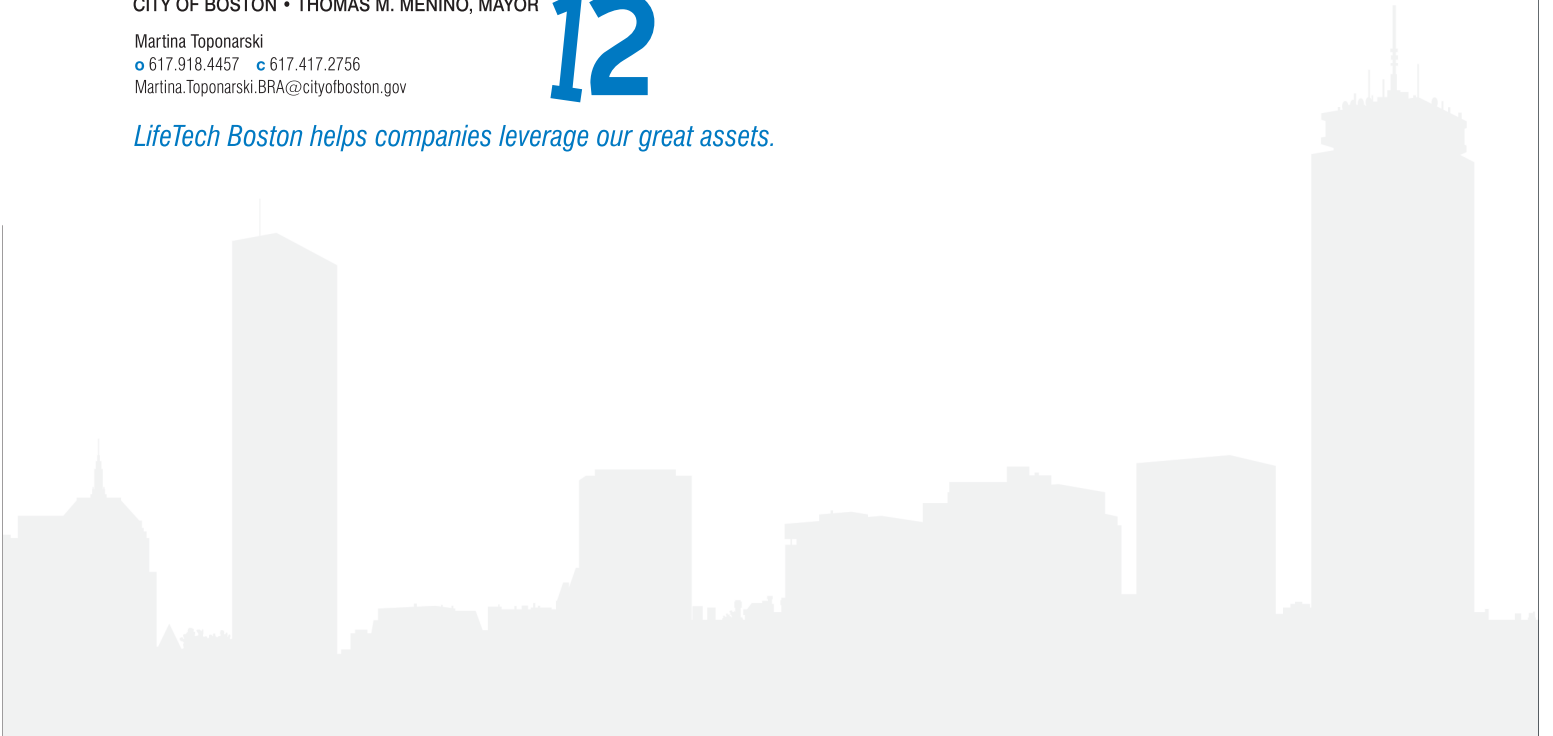
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## **Boston as a Leader in National Institutes of Health Awards Over \$21 Billion in 16 Consecutive Years**

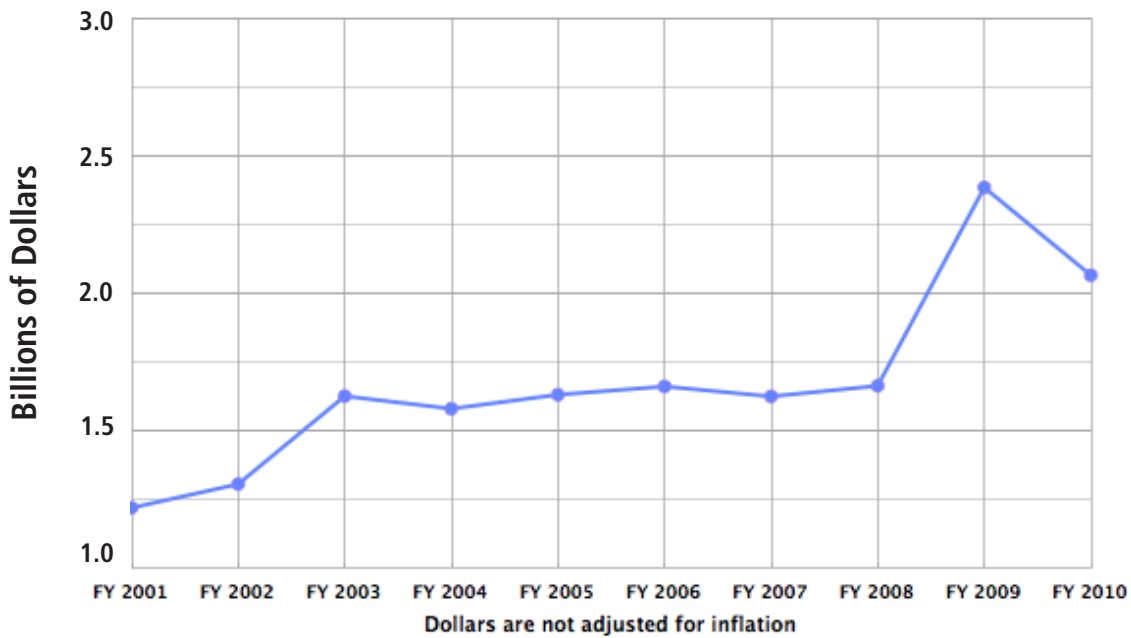
Boston's total amount of National Institutes of Health (NIH) awards in Fiscal Years 2009 and 2010 reached record levels. In both of these years the NIH distributed an additional amount of award money through the American Recovery and Reinvestment Act (ARRA), aimed at providing a boost to the nation's struggling economy. Boston's total (the sum of both regular and ARRA award monies) in 2009 was almost \$2.4 billion while the total in 2010 was a bit lower at close to \$2.1 billion. Even though ARRA funding, nationwide, was 6% greater in 2010 than 2009, the regular amount of NIH awards nationwide was 9% lower between 2010 and 2009. Boston's 13% decline from 2009 to 2010 in total awards was somewhat greater than the 7% decline in nationwide NIH funding. It appears that all main types of funding recipients shared equally in the reduction for both the ARRA and the regular funding. Even with the smaller total in 2010, Boston's total was still the second highest recorded behind 2009, and still 24% above the 2008 total.

The NIH is a part of the U.S. Department of Health and Human Services and is the agency directly responsible for funding biomedical and health-related research to a range of recipients including: medical and academic centers, research universities, and pharmaceutical and biotech companies. In Federal Fiscal Year (FY) 2010<sup>1</sup>, the annual budget for NIH was \$30.9 billion. More than 80% of the NIH's annual funding in 2010 was distributed through approximately 54,000 competitive grants. These grants were awarded for medical research to more than 325,000 researchers at over 3,000 universities, medical schools, and other research institutions and life sciences companies throughout the United States, as well as around the world. These monies are critical in easing the exorbitant cost of drug development and clinical trials.

In 2010, Boston again led all cities in NIH funding, extending its streak to 16 consecutive years. Boston finished ahead of New York City, Baltimore, Philadelphia and Seattle, which ranked numbers two through five respectively. Boston's lead over New York City was \$575 million in 2009 and \$399 million in 2010. Boston's share of total NIH funding averaged 7.4% in the ten years from 2001 through 2010. In 2007, Boston held the BIO International Convention, with record attendance. Since then, Boston received \$7.7 million in funding, which represents 36% of total NIH awards in Boston for the last 16 years.

The growth over the last 50 years of Boston's hospitals, university medical schools, colleges' academic science departments, research institutes and private-sector bio-sciences firms, has enabled Boston to benefit from the availability of a broad spectrum of funding from the NIH.

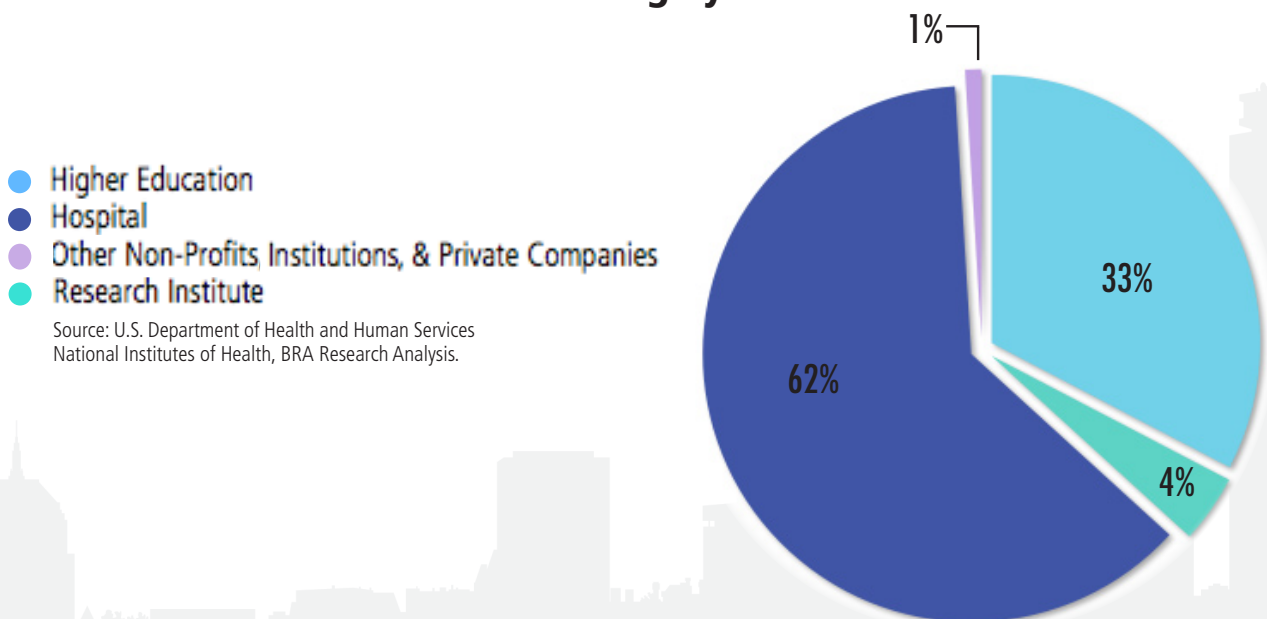
## NIH Funding by Sector



Source: U.S. Department of Health and Human Services National Institutes of Health, BRA Research Analysis.

Independent hospitals accounted for nearly \$1.3 billion of NIH awards given out in 2010, led by Massachusetts General Hospital's \$382.5 million, Brigham and Women's \$355.6 million, Dana Farber Cancer Center's \$161 million, Beth Israel/Deaconess's \$154 million, and Children's Hospital's \$126 million. All together the eleven hospitals receiving NIH awards had a 62% share of Boston's NIH funding.

## NIH Funding by Sector



Source: U.S. Department of Health and Human Services National Institutes of Health, BRA Research Analysis.

Institutions of higher education received over \$673 million in NIH funds in 2010, close to 33% of the total. The largest recipient was Harvard Medical School with \$256 million. Among the other eight universities also receiving NIH funds, both Boston University's medical campus and the Harvard School of Public Health each garnered more than \$125 million.

Boston's research institutes constituted a small, but significant, part of NIH funding recipients. The six institutes – Joslin Diabetes Center, Immune Disease Institute, Schepens' Eye Institute, Frontier Science & Technology, and Forsyth Institute — each received between \$13 and \$20 million in research revenue. This total of almost \$85 million was slightly more than 4% of Boston's 2010 NIH total.

The remaining NIH funding in Boston went to a combination of private companies, non-profit organizations, and city and state agencies or health centers. In total, 15 organizations received 51 total awards in 2010 (a total of \$20 million in funding). This amount comprised nearly 1% of the total in Boston. Some examples include Immunetics, Harvard Pilgrim Health Care, Fenway Community Health Center, and Massachusetts State Department of Public Health.

Institutions in the City of Cambridge are also major recipients of NIH funding and awards with a total of \$469 million in 2010. Harvard University and the Massachusetts Institute of Technology's (MIT) academic campuses were awarded a combined \$229 million. Research institutions led by the Whitehead Institute, Draper Laboratories, the National Bureau of Economic Research (NBER), and Abt Associates received nearly \$45 million, while private pharmaceutical and life sciences companies such as Novartis, Helicos, Molecular Insight, Novobiotic, Alkermes, Phylonix, and the Broad Institute received over 154 awards and nearly \$215 million in funding. Cambridge has a smaller presence in hospitals receiving NIH monies compared to Boston. Instead, Cambridge is home to several private firms and research institutes that receive NIH awards. Together Boston and Cambridge received more than \$2.5 billion in NIH awards.

For FY 2011 and beyond, there will not be any ARRA funding included in the NIH awards. That said, preliminary budget estimates from the Health and Human Service Department indicate a budget of \$32.2 billion for the NIH, a slight increase from the \$30.9 billion allocated in 2010. If historical funding trends continue, this could mean over \$2 billion dollars entering Boston's local economy for biomedical and health related research. The President's NIH budget proposal for 2012 is \$32 billion but it is not yet enacted by Congress and, if approved, that would make Boston's share about the same as for 2011. Health care and higher education institutions, as well as research institutes and private corporations will continue to play a very important role in combining to encompass a larger presence in the economy for the life sciences and bio-technology industries, making Boston a vanguard of this growth sector in America's economy. ■