



**Massachusetts Biomedical Initiatives  
2013**

**Analysis of the Biomedical Industry's Economic Impact  
within the  
Worcester/Cambridge/ Boston Life Sciences Corridor**

# “World Class Incubators for World Class Science”

## **Massachusetts Biomedical Initiatives, Inc. (MBI)**

MBI is a private, independent economic development organization dedicated to job creation and innovative healthcare by promoting the growth of start-up biomedical companies. Through its business incubator commercialization facilities located in Worcester, MBI lowers barriers to success for emerging companies by providing cost-effective, high quality laboratory space and support services. MBI collaborates with the academic, business and government communities to promote Massachusetts as the world leader in the life science industry. Over the last decade MBI's incubators have a 75% graduate success rate producing 64 companies (77% remain in Massachusetts) and over 500 newly created jobs.

# Worcester at a Glance

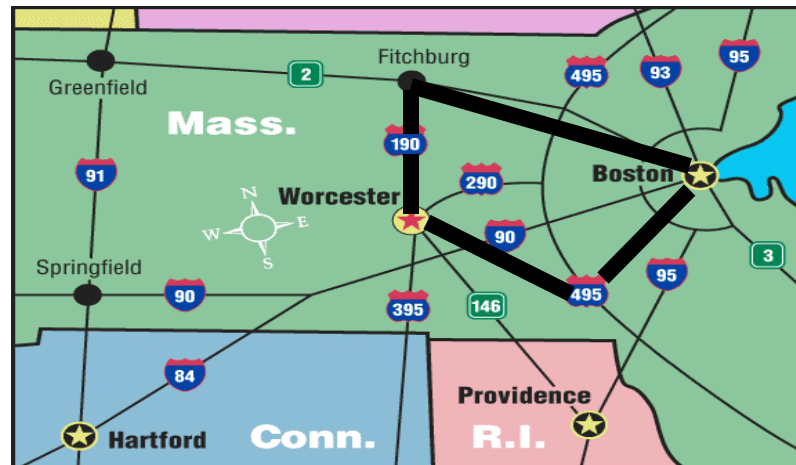
- Home to 10 colleges and universities with over 35,000 students including the University of Massachusetts Medical School, Worcester Polytechnic Institute (WPI) Holy Cross College, Clark University, Massachusetts College of Pharmacy and Health Sciences and Tufts Cummings School of Veterinary Medicine.
- Forty-five percent (45%) of all jobs in the city are in the education, health & science and medical industry fields
- Thirty-six percent (36%) of residents between the ages of 25 and 34 have a bachelors or post graduate degree
- Population of 181,045 – second largest city in New England
- Worcester Area Median Family Income: \$83,600
- Payroll of Worcester employers: \$4.8 billion
- 17 daily round trip MBTA commuter trains to Boston

# Methodology

- Boston – Worcester Corridor: Boston area including greater Boston & Cambridge and Worcester County : Rt. 9, Mass Pike, Rt. 2 and I-190
- Biomedical related companies defined as Biotechnology (drug discovery), Medical Device (drug delivery), and Informatics (molecular biology and computer science)
- Compiled listing of biomedical companies in Massachusetts using sources including Mass High Tech Journal, Mass Biotechnology Council, (MassBio) Mass Medical Device Industry Association (MassMedic) & MacRAE's Bluebook
- Contacted companies throughout corridor region to determine Full Time Equivalent (FTE) Costs
- Determined economic impact by multiplying average Full Time Equivalent (FTE) Costs, by the total number of employees within the corridor region. FTE costs determined by total company costs divided by number of employees
- Determined data by using simple linear equations and expert opinions and interviews conducted by WPI major qualifying project students

# Boston/Cambridge-Worcester Corridor

Definition: Boston Area West to Worcester, within Rt. 2, Rt.9, Mass Pike



# of Biomedical Companies – 690

# of Biomedical Employees – 56,759

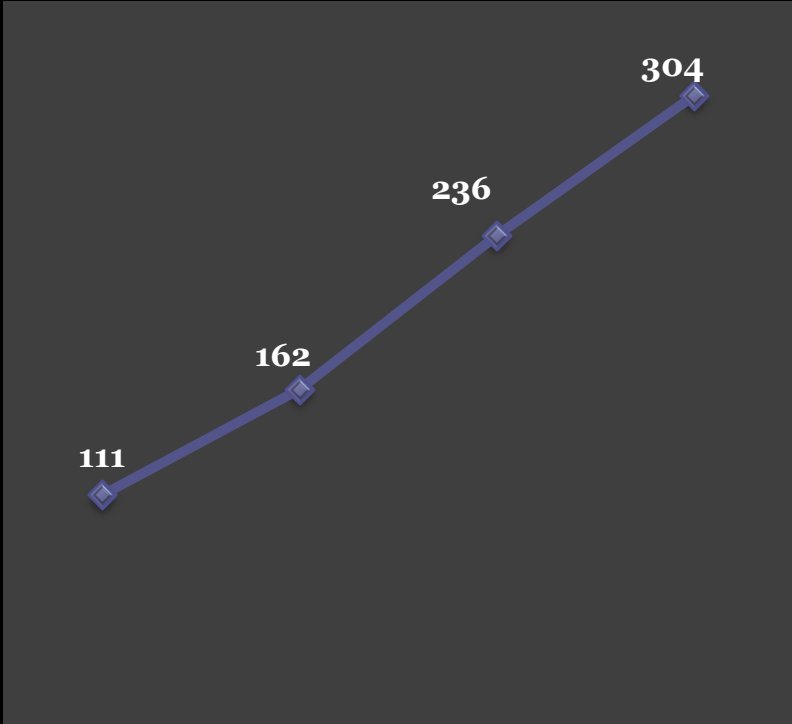
Average FTE Costs – \$154,918

Economic Impact - \$8,792,990,762

(based on 2012 data)

# Worcester County Biomedical Industry

## Worcester County Companies



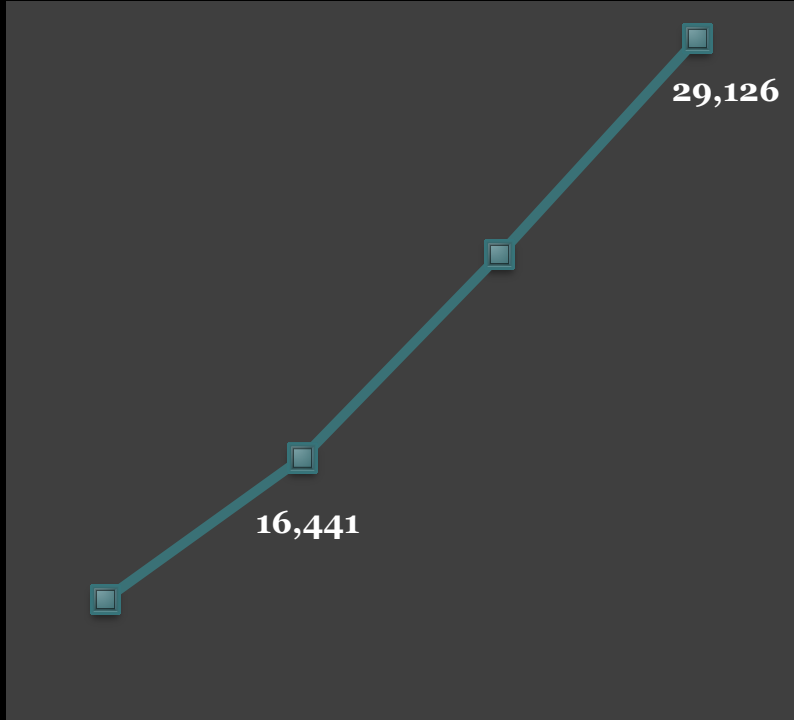
2004

2007

2010

2012

## Worcester County Employees



2004

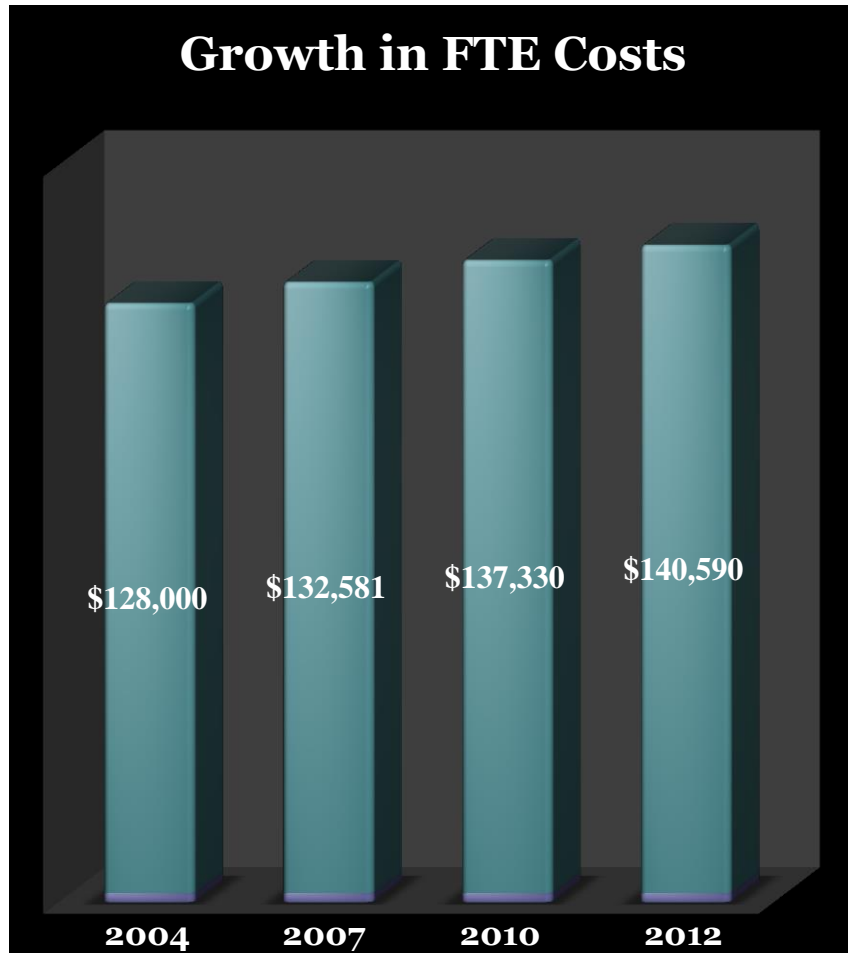
2007

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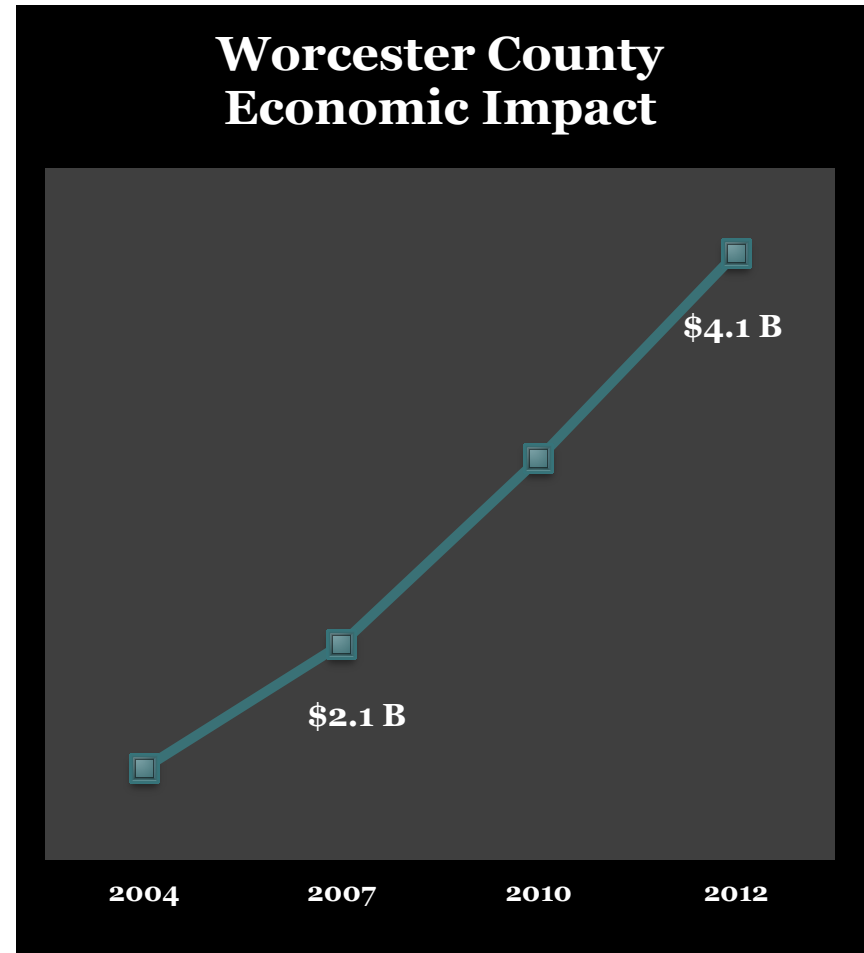
2012

# Worcester County Biomedical Industry

## Growth in FTE Costs



## Worcester County Economic Impact



# The Future of the Massachusetts Biomedical Industry is Bright

Governor Deval Patrick's Massachusetts Life Sciences Center Initiative  
2008

- \$500 million towards public higher education related to life sciences
- \$250 million on research grants
- \$250 million in tax benefits
- \$250 million in private sector matching funds for capital, research grants, fellowships, & workforce training



# Acknowledgements & Resources

- **Peter J. Abair:** Director, Economic Development, Massachusetts Biotechnology Council (MassBio)
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- **Glen Comiso:** Director of Life Sciences, Mass Technology Collaborative
- **Martha Framer, PhD:** Chair, Biomedical Section, North Shore Technology Council NSTC)
- **Kevin O'Sullivan:** President & CEO, Massachusetts Biomedical Initiatives (MBI)
- **Thomas J. Sommer:** President, Massachusetts Medical Device Industry Council (MassMEDIC)
- **Wanli Zhao:** Assistant Professor of Management, Worcester Polytechnic Institute (WPI)
- **WPI Major Student Qualifying Project**

# Resources

- Benchmarking and Determining the Impact of Biomedical Corridor (WPI Major Student Qualifying Project report)
- Boston Foundation: The Role of the Massachusetts Life Sciences Center
- MacRae's Bluebook
- Mass High Tech Journal
- Massachusetts Biomedical Initiatives (MBI)
- Massachusetts Biotechnology Council (MassBio, Industry Snapshot 2013)
- Massachusetts Medical Device Council (MassMEDIC)
- PricewaterhouseCoopers, LLC Supercluster report ( 2008)