

Oil and Natural Gas Stimulate Massachusetts

Economic and Job Growth



Oil and natural gas are driving the U.S. economy through a major energy boom and that boom is rippling through the economy of Massachusetts, supporting business activity across the state. This finding grows out of a new American Petroleum Institute survey of domestic oil and natural gas vendors,¹ which offers a glimpse into the job and business creation engine that is the current oil and natural gas industry. The survey shows that at least 209 businesses, spread across the state's nine congressional districts, are part of the larger oil and natural gas supply chain.

The survey's snapshot of state-by-state activity reinforces the impressive level of industry success throughout the country that is documented in a recent PriceWaterhouseCoopers study conducted for the American Petroleum Institute.² That study found that the oil and natural gas industry in Massachusetts supports some 106,300 jobs, which is 2.5 percent of the state's total employment. The amount of Massachusetts labor income supported by the oil and natural gas industry comes to \$7.12 billion annually. That's 2.6 percent of the state's total labor income.

Although Massachusetts is not a top U.S. energy producer, these job and labor income figures demonstrate that the people of Massachusetts enjoy significant benefits

from energy development.³ The benefits show up in the state's salary statistics as well. Thus, while the average annual salary in Massachusetts across all industries and sectors is \$62,317, the average oil and gas industry salary (excluding gas stations) is significantly higher—\$75,687 annually. Overall the industry supports \$12.6 billion of the Massachusetts economy. That's approximately 3 percent of the state's total economic activity.

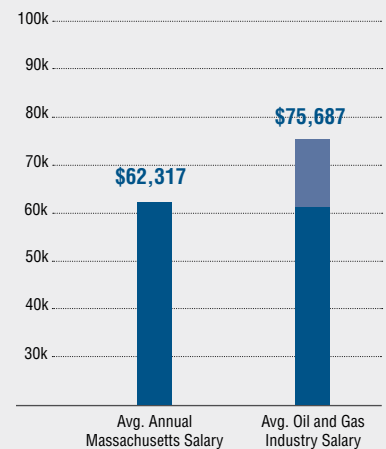
Massachusetts also benefits from the production of oil and natural gas from shales and so-called "tight formations," energy development that uses the proven engineering technologies of hydraulic fracturing, or "fracking," and horizontal drilling. Total jobs supported by these

\$12.6 BILLION
THE INDUSTRY CONTRIBUTES TO
MASSACHUSETTS'S ECONOMY

106,300
MASSACHUSETTS JOBS

SUPPORTED BY OIL AND
NATURAL GAS INDUSTRY

AVERAGE ANNUAL SALARY COMPARISON



1. American Petroleum Institute, "API Onshore Oil and Gas Vendor Identification Survey," Washington, D.C., 2014. The survey was distributed to API members in January 2014 to collect information for the period October 2012 to September 2013. Included are companies that provide goods and services for onshore oil and natural gas development, whether as operators, contractors, service companies, suppliers, or vendors.

2. PriceWaterhouseCoopers, "Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy in 2011," Washington, D.C., July 2013. Prepared for API using the IMPLAN input-output modeling system, based on 2011 U.S. Bureau of Economic Analysis data.

3. Information cited in this paragraph comes from the Bureau of Labor Statistics, Quarterly Census of Employment and Wages (preliminary data for 2013 accessed July 2014); and PriceWaterhouseCoopers, "The Economic Impacts of the Oil and Natural Gas Industry on the U.S. Economy: Employment, Labor Income and Value Added," 7/12/13 (based on 2012 IMPLAN database).

State: Massachusetts

Vendors by Congressional District

Congressional District	Total
Congressional District 1	3
Congressional District 2	23
Congressional District 3	17
Congressional District 4	7
Congressional District 5	42
Congressional District 6	19
Congressional District 7	3
Congressional District 8	88
Congressional District 9	7
Grand Total	209

Vendor Profile⁶

Plumb Geomechanics, LLC

Plumb Geomechanics was founded in 2010, after the company's principal retired from Schlumberger: "[My goal was] to transfer my knowledge to the next generation of geoscientists working in the petroleum industry." A small business located in Cambridge, Massachusetts, Plumb Geomechanics provides consulting services to the upstream oil and gas industry. The company aims to help clients develop geomechanical models for regions where exploration wells will be drilled. The models are used to help plan the wells and to manage drilling risk while the wells are being drilled.

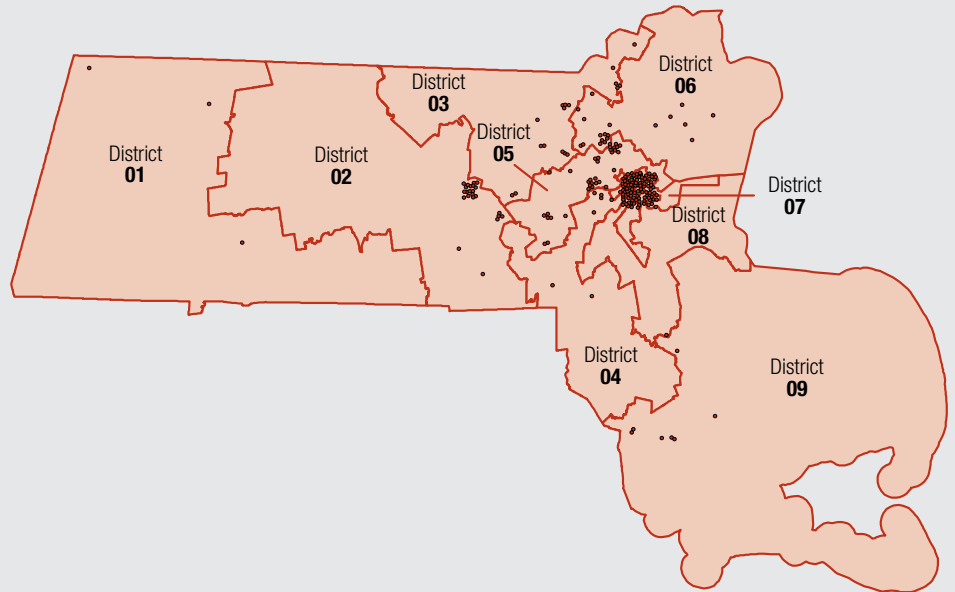
Plumb Geomechanics also provides basic training in borehole geomechanics. The company teaches 3-day and 5-day courses on the foundations of applied borehole geomechanics. The course covers basic concepts used in geomechanics, the workflows for building geomechanical models using conventional oilfield data, and application of the models for the life of a field.

The founder of Plumb Geomechanics helped create the geomechanics services business in Schlumberger. "Over a period of 30 years, I helped develop the science, measurements, workflows software, and business models that underpin the geomechanics services business. I offer my clients a deep understanding of what is known and what is not known about the state of stress and rock mechanical properties at great depth in sedimentary basins. I help them develop new geomechanics information in their exploration wells and apply it to minimize operational risk when drilling and developing new reservoirs."

6. From the 2014 "API Onshore Oil and Gas Vendor Identification Survey" returns.

Massachusetts Vendors by Congressional District

District Location ●



Top Cities

Boston = 87
Woburn = 10

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

activities in Massachusetts reached 15,896 in 2012. The job total is projected to climb to 26,446 in 2020 and to 28,090 in 2035.⁴

And Americans, including the people of Massachusetts, get it. A telephone poll of 1,012 registered voters across the country,

conducted on behalf of the American Petroleum Institute, found that 77 percent of Americans, regardless of party affiliation, support increased production of oil and natural gas resources located in the United States.⁵

4. "IHS Inc., "America's New Energy Future: The Unconventional Oil and Gas Revolution and the U.S. Economy," Washington, D.C., December 2012.
5. "What America is Thinking on Energy Issues." <http://www.api.org/news-and-media/news/newsitems/2014/july-2014/voters-say-us-should-do-more-to-develop-oil-natural-gas> the results of a national poll conducted by Harris for API July 10-13, 2014. Click on "national poll" to see how percentages of voters answered this and other questions.



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Congressional District 1

Diamond Water Systems, Inc
Stainless Source
Treetage Software, Inc

Congressional District 2

Acumentrics Sofc Corporation
AIW, LLC
Aternity, Inc
Clean Harbors Environmental Services, Inc
Coler & Colantonio, Inc
Computershare Technology Services
Cyalume Technologies, Inc
Dresser, Inc
EMC Corporation
Feazel Geoconsulting, LLC
Fiba Technologies, Inc
GZA Geoenvironmental, Inc
Hydrotest Products, Inc
Instron Corporation
Malvern Instruments, Inc
Mott Macdonald, LLC
National Fire Codes
National Fire Protection NFPA International
Olav & Co, Inc
Peak Energy Services USA, Inc
The Training Associates Corporation
Trainright, Inc

Congressional District 3

Armon Technologies, LLC
Amzengroup, LLC
Birddog Solutions
Blackstone Instruments
Cybergrants, Inc
Datawatch Corporation
Dawn Laboratories, LLC
Hottinger Baldwin Measurements
Lawrence Pumps, Inc
Oxford Instruments America, Inc
Progression, Inc
Rob Hartz Consulting
Seavus USA, Inc
Spectro, Inc
Syncopation Software, Inc

Thermo Orion, Inc
Zoll Medical

Congressional District 4

Cyber Ark Software, Inc
Glanz Associates
Industrial Video & Control Co, LLC
Invensys Systems, Inc
Retele Communications
Thermo Environmental Instruments, Inc
Wamit, Inc

Congressional District 5

A.W. Chesterton Company
American International Chemical, Inc
Associates For International
Beacon Hill Staffing Group, LLC
Bottomline Technologies, Inc
Bruker Daltronics, Inc
CDM Smith, Inc
Celerant Consulting, Inc
Christopher J. Drew
Dassault Systemes Americas Corporation
Enterprise Information Resources, Inc
Fastners & Metal Products Corporation
Forester Research, Inc
Hitachi Consulting Corporation
IHS Cera, Inc
IHS Global, Inc.
Interaction Associates, Inc
Invention Machine Corporation
Ipswitch, Inc
Lewa Nikkiso America, Inc
Maintenance Reseller Corporation
Mason Brown Oil & Gas, LLC
Massachusetts Institute of Technology
Metalogix International
Methods Machine Tools, In
Michael A. Roberto
Monitor Company Group, LP
NWN Corporation
Oil Combinations, Inc
Olympus Ndt, Inc

PC Connection Sales Corporation
Plum Geomechanics, LLC
Process Software, LLC
Rightanswers, Inc
Ryan E. Katofsky
Sodexo, Inc & Affiliates
Staples Contract & Commercial, Inc
Staples, Inc
Telerik, Inc
The Mathworks, Inc
Tower Numerics, Inc
Verdasys, Inc

Congressional District 6

Altova, Inc
Andrew Dejarnette Light
Aspen Technology, Inc
Comsol, Inc
Copyright Clearance Center
Emptoris, Inc
Entegeee, Inc
Flir Systems, Inc
Foresite Energy Services, LLC
GE Infrastructure Sensing, Inc
M.M. Newman
QSA Global, Inc
Relion Industries
RSA Security, LLC
Skipping Stone, LLC
Thermo Scientific Portable
Truepoint, LLC
Unifirst Holdings, Inc
Visualization Sciences Group, Inc

Congressional District 7

Financial Accounting Standards
Pepperdash Technology
United Rentals (North America), Inc

Congressional District 8

Abbott Ball
Achieveglobal
ADP, Inc
Advantage Tech Resourcing, Inc
American Tower Corporation
Anaqua Services, Inc
Andrews International, Inc

AW Chesterton
BA Insight, LLC
Bayou Swabbing, LLC
Best Doctors
Bloomberg Finance LP
Broadridge ICS
Carousel Industries of North America, Inc
CDM Smith, Inc
Channing L. Bete Company, Inc
Clean Harbors Environmental Services, Inc
Clean Harbors Surface Rentals
Cleveland Brothers Equipment Co, Inc
Copyright Clearance Center
Corven, Inc
Crosby Legacy Company, LLC
Dassault Falcon Jet Corporation
Dionex Corporation
Edgerock Technologies, LLC
ESAB Group Canada, Inc
ESI International, Inc
Flir Commerical Systems, Inc
Foley Hoag LLP
Friedman Electric Supply Co
FTI Consulting, Inc
GE Mobile Water, Inc
Granite Telecommunications, LLC
Great Lakes Carbon Treatment, Inc
Harvard Business School
Health Resources
Honeywell Safety Products
Iconics
IDC Research, Inc
IHRDC
IHS Global, Inc
Industrial Solutions Group, LLC
Inmarsat Solutions US, Inc
International Human Resources Development
Intertek USA, Inc
Invention Machine Corporation
Iron Mountain, Inc PA
ISS Corporate Services, Inc
Jackson Lewis LLP
Jeol USA, Inc
K2 Partnering Solutions West, Inc

Kronos
L Com Global Connectivity
Labvantage Solutions
Locator Services Group Ltd
Lux Research, Inc
MathWorks, Inc
Measurement Specialties, Inc
Mentor IMC (USA), Inc
Oliver Wyman, Inc
Options For Change, LLC
Oxford Global Resources, Inc
Peak Energy Services
Peak Scientific, Inc
Pennsy Supply, Inc
Power Advocate, Inc
PPG Architectural Finishes, Inc
Praxair, Inc
Public Company Accounting
RBS Asset Finance, Inc
Reagent Chemical & Research, Inc
Sparrows Offshore, LLC
Staples Advantage
Stratos Global Corporation
Stratos Offshore Services Co
Survivair
Target Logistics Management, LLC
Target Oilfield Services, LLC
Tech Depot
Technip E&C, Inc
Thermo Scientific Portable
Thomson Reuters, LLC
TNCI
Veson Nautical Corporation
Vocus, Inc
Webject Systems, Inc
Wolters Kluwer Financial Services, Inc
Wood Mackenzie, Inc

Congressional District 9

Acorn International, LLC
Aecom Environment
Brookfield Engineering Laboratories
Fiberspar Corporation
Horizon Marine, Inc
Level Negotiations, LLC
Zapp Precision Wire, Inc