NEWS RELEASE
BUREAU OF LABOR STATISTICS
U. S. DEPARTMENT OF LABOR

For Release: Friday, December 23, 2016 **16-2074-BOS**

NEW ENGLAND INFORMATION OFFICE: Boston, Mass.
Technical information: (617) 565-2327 BLSInfoBoston@bls.gov www.bls.gov/regions/new-england
Media contact: (617) 565-2326 BLSMediaBoston@bls.gov

OCCUPATIONAL EMPLOYMENT AND WAGES FOR SELECTED STEM OCCUPATIONS IN MASSACHUSETTS' METROPOLITAN AREAS AND DIVISIONS – MAY 2015

Among selected metropolitan areas in Massachusetts, Boston-Cambridge-Nashua New England City and Town Area (the Boston NECTA) and Leominster-Gardner had wages that were significantly above the national average for computer user support specialists, the U.S. Bureau of Labor Statistics reported today. Regional Commissioner Deborah A. Brown noted that the Boston NECTA also had wages that were significantly higher than the respective national averages for applications software developers and systems software developers. Nationwide, the average (mean) wage for computer user support specialists was $52,430; for applications software developers, $102,160; and for systems software developers, $108,760. (See table A. This release contains data on selected science, technology, engineering, and mathematics – STEM – occupations. A list of occupations included in the STEM definition used for this release is available at www.bls.gov/oes/stem_list.xlsx. For definitions of the Massachusetts metropolitan areas discussed in this release, please see Technical Note.)

Table A. Average (mean) annual wages for selected STEM occupations in the United States and metropolitan areas in Massachusetts, May 2015

Area	Computer User Support Specialists	Software Developers, Applications	Software Developers, Systems Software
United States	$52,430	$102,160	$108,760
Massachusetts	62,270*	109,430*	113,410*
Barnstable Town, Mass.	51,680	99,180	93,680*
Boston-Cambridge-Nashua, Mass.-N.H.	63,840*	109,540*	115,180*
Boston-Cambridge-Newton, Mass. NECTA Division	64,940*	107,740	114,780*
Brockton-Bridgewater-Easton, Mass. NECTA Division	59,330*	94,230*	(1)
Framingham, Mass. NECTA Division	59,620*	103,710	108,960
Haverhill-Newburyport-Amesbury Town, Mass.-N.H. NECTA Division	64,030*	73,580*	111,030
Lawrence-Methuen Town-Salem, Mass.-N.H. NECTA Division	61,240*	112,050*	105,920
Lowell-Billerica-Chelmsford, Mass.-N.H. NECTA Division	65,080*	(1)	126,020*
Peabody-Salem-Beverly, Mass. NECTA Division	56,140	95,930*	104,550
Taunton-Middleborough-Norton, Mass. NECTA Division	63,220*	96,040	116,930
Leominster-Gardner, Mass.	58,940*	102,920	(1)
Pittsfield, Mass.	40,790*	(1)	90,600*
Springfield, Mass.-Conn.	52,990	94,610*	89,840*
Worcester, Mass.-Conn.	55,140	100,770	94,600*

Footnotes:
(1) Data not available
Note: An asterisk indicates that the mean annual wage for this area is significantly different from the national average of all areas at the 90-percent confidence level.
The Providence-Warwick. R.I.-Mass. NECTA and the Nashua, N.H.-Mass. NECTA Division were excluded because they are primarily located outside of Massachusetts. The New Bedford, Mass. NECTA and Lynn-Saugus-Marblehead, Mass. NECTA Division were excluded because of insufficient data.

The Boston NECTA had a combined employment of 69,990 for the three selected STEM occupations, with 49,230 of these jobs in the Boston-Cambridge-Newton NECTA division, while the Framingham NECTA division and the Lowell-Billerica-Chelmsford NECTA division had a combined employment of 9,830 and 4,970 respectively. Among the other selected metropolitan areas in Massachusetts, Worcester and Springfield had a combined employment of 2,630 and 2,450, respectively, for the three occupations. (See table B.)

Location quotients (LQ's) allow us to explore the occupational make-up of a metropolitan area by comparing the composition of jobs in an area relative to the national average. For example, a location quotient of 2.0 indicates that an occupation accounts for twice the share of employment in the area than it does nationally.

Several of the selected metropolitan areas in Massachusetts had some of the highest LQ's in the nation for the three selected STEM occupations. The Framingham and Lowell NECTA divisions had LQs of 4.71 and 2.38, respectively, for applications software developers. High LQs were noted for systems software developers in the Framingham (7.84), Lowell (5.33), and Boston (3.60) NECTA divisions. Pittsfield also had an above average LQ (2.93) for systems software developers. (See table B.)

Table B. Employment of selected STEM occupations in the United States and metropolitan areas in Massachusetts, May 2015

Area	Computer User Support Specialists		Software Developers, Applications		Software Developers, Systems Software	
	Total employment	Location quotient	Total employment	Location quotient	Total employment	Location quotient
United States	585,060	1.00	747,730	1.00	390,750	1.00
Massachusetts	17,920	1.24	28,630	1.55	26,420	2.74
Barnstable Town, Mass.	270	0.62	160	0.29	170	0.60
Boston-Cambridge-Nashua, Mass.-N.H.	15,860	1.42	28,540	2.00	25,590	3.44
Boston-Cambridge-Newton, Mass. NECTA Division	11,770	1.57	19,490	2.04	17,970	3.60
Brockton-Bridgewater-Easton, Mass. NECTA Division	170	0.51	70	0.17	(1)	(1)
Framingham, Mass. NECTA Division	1,600	2.18	4,400	4.71	3,830	7.84
Haverhill-Newburyport-Amesbury Town, Mass.-N.H. NECTA Division	170	0.64	110	0.33	(1)	(1)
Lawrence-Methuen Town-Salem, Mass.-N.H. NECTA Division	280	0.83	540	1.24	310	1.35
Lowell-Billerica-Chelmsford, Mass.-N.H. NECTA Division	830	1.33	1,910	2.38	2,230	5.33
Peabody-Salem-Beverly, Mass. NECTA Division	220	0.54	220	0.43	100	0.38
Taunton-Middleborough-Norton, Mass. NECTA Division	130	0.54	50	0.16	150	0.92
Leominster-Gardner, Mass.	120	0.57	50	0.18	(1)	(1)
Pittsfield, Mass.	90	0.54	(1)	(1)	340	2.93
Springfield, Mass.-Conn.	1,100	0.83	930	0.55	420	0.48
Worcester, Mass.-Conn.	930	0.81	940	0.63	760	0.98

Footnotes:
(1) Data not available
Note: The Providence-Warwick. R.I.-Mass. NECTA and the Nashua, N.H.-Mass. NECTA Division were excluded because they are primarily located outside of Massachusetts. The New Bedford, Mass. NECTA and Lynn-Saugus-Marblehead, Mass. NECTA Division were excluded because of insufficient data.

Wages for computer user support specialists in selected Massachusetts metropolitan areas

The Boston NECTA was a metropolitan area in Massachusetts with significantly higher wages than the U.S. average of $52,430 for computer user support specialists. Seven of the eight divisions in the Boston NECTA had above-average wages for this occupation, with Peabody the exception. Leominster ($58,940) also had above-average wages for computer user support specialists. Pittsfield ($40,790) had wages that were significantly lower than the U.S. average for this occupation.

Wages for applications software developers in selected Massachusetts metropolitan areas

Wages for applications software developers in the Boston NECTA ($109, 540) were significantly higher than the national average of $102,160. The Lawrence NECTA division ($112,050), part of the Boston NECTA, also had above-average wages. Springfield ($94,610) had wages that were significantly below the national average for this occupation. In addition, three divisions in the Boston NECTA had significantly lower wages: Brockton-Bridgewater-Easton, Haverhill-Newburyport-Amesbury Town, and Peabody-Salem-Beverly.

Wages for systems software developers in selected Massachusetts metropolitan areas

The Boston NECTA ($115,180) was the only metropolitan area where wages for systems software developers were significantly above the national average of $108,760. Two divisions in the Boston NECTA also had above-average wages: Lowell ($126,020) and Boston ($114,780). Worcester ($94,600), Barnstable ($93, 680), Pittsfield ($90,600), and Springfield ($89,840) had wages that were significantly lower than the national average for this occupation.

These statistics are from the Occupational Employment Statistics (OES) survey, a federal-state cooperative program between BLS and State Workforce Agencies, in this case, the Massachusetts Department of Unemployment Assistance, the Connecticut Department of Labor, and the New Hampshire Department of Employment Security.

Statistical Significance

A value that is statistically different from another does not necessarily mean that the difference has economic or practical significance. Statistical significance is concerned with the ability to make confident statements about a universe based on a sample. It is entirely possible that a large difference between two values is not significantly different statistically, while a small difference is, since both the size and heterogeneity of the sample affect the relative error of the data being tested.

Technical Note

The Occupational Employment Statistics (OES) survey is a semiannual survey measuring occupational employment and wage rates for wage and salary workers in nonfarm establishments in the United States. The OES program produces employment and wage estimates for over 800 occupations for all industries combined in the nation; the 50 states and the District of Columbia; 432 metropolitan areas and divisions; 167

nonmetropolitan areas; and Guam, Puerto Rico, and the U.S. Virgin Islands. National estimates are also available by industry for NAICS sectors, 3-, 4-, and selected 5- and 6-digit industries, and by ownership across all industries and for schools and hospitals. OES data are available at www.bls.gov/oes/tables.htm.

OES estimates are constructed from a sample of about 1.2 million establishments. Survey questionnaires or instructions for reporting data electronically are mailed to approximately 200,000 sampled establishments in May and November each year. May 2015 estimates are based on responses from six semiannual panels collected over a 3-year period: May 2015, November 2014, May 2014, November 2013, May 2013, and November 2012. The overall national response rate for the six panels is 73.5 percent based on establishments and 69.6 percent based on weighted sampled employment. (Response rates are slightly lower for these estimates due to the federal shutdown in October 2013.) The unweighted employment of sampled establishments across all six semiannual panels represents approximately 57.9 percent of total national employment. For more information about OES concepts and methodology, go to www.bls.gov/oes/current/oes_tec.htm.

The May 2015 OES estimates are based on the 2010 Standard Occupational Classification (SOC) system and the 2012 North American Industry Classification System (NAICS). Information about the 2010 SOC is available on the BLS website at www.bls.gov/soc and information about the 2012 NAICS is available at www.bls.gov/bls/naics.htm.

Metropolitan area definitions

The substate area data published in this release reflect the standards and definitions established by the U.S. Office of Management and Budget.

Barnstable Town, Mass. includes Barnstable city, Bourne town, Brewster town, Chatham town, Dennis town, Eastham town, Falmouth town, Harwich town, Marion town, Mashpee town, Orleans town, Sandwich town, Wareham town, Wellfleet town, and Yarmouth town in Massachusetts.

Boston-Cambridge-Nashua, Mass.-N.H. NECTA includes applicable cities and towns in the following divisions: Boston-Cambridge-Newton, Mass. NECTA Division; Brockton-Bridgewater-Easton, Mass. NECTA Division; Framingham, Mass. NECTA Division; Haverhill-Newburyport-Amesbury Town, Mass.-N.H. NECTA Division; Lawrence-Methuen Town-Salem, Mass.-N.H. NECTA Division; Lowell-Billerica-Chelmsford, Mass.-N.H. NECTA Division; Lynn-Saugus-Marblehead, Mass. NECTA Division; Nashua, N.H.-Mass. NECTA Division; Peabody-Salem-Beverly, Mass. NECTA Division; and the Taunton-Middleborough-Norton, Mass. NECTA Division.

Boston-Cambridge-Newton, Mass. NECTA Division includes Abington town, Acton town, Andover town, Arlington town, Bedford town, Belmont town, Berlin town, Bolton town, Boston city, Boxborough town, Boxford town, Braintree town, Brookline town, Burlington town, Cambridge city, Canton town, Carlisle town, Carver town, Chelsea city, Cohasset town, Concord town, Dedham town, Dover town, Duxbury town, Essex town, Everett city, Foxborough town, Franklin city, Gloucester city, Halifax town, Hamilton town, Hanover town, Hingham town, Holbrook town, Hull town, Ipswich town, Kingston town, Lexington town, Lincoln town, Lynnfield town, Malden city, Manchester by the Sea town, Mansfield town, Marshfield town, Maynard town, Medfield town, Medford city, Medway town, Melrose city, Middleton town, Millis town, Milton town, Needham town, Newbury town, Newton city, Norfolk town, North Reading town, Norwell town, Norwood town, Pembroke town, Plymouth town, Plympton town, Quincy city, Randolph town, Reading town, Revere city, Rockland town, Rockport town, Rowley town, Scituate town, Sharon town, Sherborn town, Somerville city, Stoneham town, Stoughton town, Stow town, Topsfield town, Wakefield town, Walpole town, Waltham

city, Watertown city, Wayland town, Wellesley town, Wenham town, Weston town, Westwood town, Weymouth town, Wilmington town, Winchester town, Winthrop town, Woburn city, and Wrentham town in Massachusetts.

Brockton-Bridgewater-Easton, Mass. NECTA Division includes Avon town, Bridgewater town, Brockton city, East Bridgewater town, Easton town, Hanson town, West Bridgewater town, and Whitman town in Massachusetts.

Framingham, Mass. NECTA Division includes Ashland town, Framingham town, Holliston town, Hopedale town, Hopkinton town, Hudson town, Marlborough city, Mendon town, Milford town, Natick town, Southborough town, and Sudbury town in Massachusetts.

Haverhill-Newburyport-Amesbury Town, Mass.-N.H. NECTA Division includes Amesbury town, Georgetown town, Groveland town, Haverhill city, Merrimac town, Newburyport city, Salisbury town, and West Newbury town in Massachusetts; Atkinson town, Danville town, East Kingston town, Fremont town, Hampstead town, Hampton Falls town, Kensington town, Kingston town, Newton town, Plaistow town, Sandown town, Seabrook town, and South Hampton town in New Hampshire,

Lawrence-Methuen Town-Salem, Mass.-N.H. NECTA Division includes Lawrence city, Methuen city, North Andover town in Massachusetts; and Salem town in New Hampshire.

Lowell-Billerica-Chelmsford, Mass.-N.H. NECTA Division includes Ashby town, Ayer town, Billerica town, Chelmsford town, Dracut town, Groton town, Harvard town, Littleton town, Lowell city, Shirley town, Tewksbury town, Townsend town, Tyngsborough town, and Westford town in Massachusetts; and Pelham town in New Hampshire.

Lynn-Saugus-Marblehead, Mass. NECTA Division includes Lynn city, Marblehead town, Nahant town, Saugus town, and Swampscott town in Massachusetts.

Nashua, N.H.-Mass. NECTA Division includes Amherst town, Brookline town, Greenfield town, Greenville town, Hollis town, Hudson town, Litchfield town, Lyndeboro town, Mason town, Merrimack town, Milford town, Mont Vernon town, Nashua city, Temple town, Wilton town, Chester town, Derry town, Londonderry town, and Windham town in New Hampshire; and Dunstable town and Pepperell town in Massachusetts.

Peabody-Salem-Beverly, Mass. NECTA Division includes Beverly city, Danvers town, Peabody city, and Salem city in Massachusetts.

Taunton-Middleborough-Norton, Mass. NECTA Division includes Berkley town, Dighton town, Freetown town, Lakeville town, Middleborough town, Norton town, Raynham town, Rochester town, Taunton city in Massachusetts.

Leominster-Gardner, Mass. includes Ashburnham town, Fitchburg city, Gardner city, Leominster city, Lunenburg town, Phillipston town, Royalston town, Templeton town, Westminster town, and Winchendon town in Massachusetts.

Pittsfield, Mass. includes Adams town, Becket town, Cheshire town, Dalton town, Hinsdale town, Lanesborough town, Lee town, Lenox town, Middlefield town, New Ashford town, Peru town, Pittsfield city, Richmond town, Savoy town, Washington town, and Windsor town in Massachusetts.

Springfield, Mass.-Conn.includes Agawam city, Amherst town, Ashfield town, Belchertown town, Blandford town, Chester town, Chesterfield town, Chicopee city, Conway town, Cummington town, Deerfield town, East Longmeadow town, Easthampton town, Goshen town, Granby town, Granville town, Hadley town, Hampden town, Hatfield town, Holyoke city, Huntington town, Leverett town, Longmeadow town, Ludlow town, Monson town, Montgomery town, Northampton city, Palmer town, Pelham town, Russell town, Shutesbury town, South Hadley town, Southampton town, Southwick town, Springfield city, Sunderland town, Tolland town, Wales town, Ware town, Wendell town, West Springfield town, Westfield city, Westhampton town, Whately town, Wilbraham town, Williamsburg town, and Worthington town in Massachusetts; East Windsor town, Enfield town, Somers town, Suffield town, and Windsor Locks town in Connecticut.

Worcester, Mass.-Conn. includes Auburn town, Barre town, Boylston town, Brimfield town, Brookfield town, Charlton town, Clinton town, Douglas town, Dudley town, East Brookfield town, Grafton town, Holden town, Holland town, Hubbardston town, Lancaster town, Leicester town, Millbury town, New Braintree town, North Brookfield town, Northborough town, Northbridge town, Oakham town, Oxford town, Paxton town, Princeton town, Rutland town, Shrewsbury town, Southbridge town, Spencer town, Sterling town, Sturbridge town, Sutton town, Upton town, Uxbridge town, Warren town, Webster town, West Boylston town, West Brookfield town, Westborough town, and Worcester city in Massachusetts; and Brooklyn town, Killingly town, Plainfield town, Pomfret town, Putnam town, Sterling town, Thompson town, and Woodstock town in Connecticut.

Additional information

OES data are available on our regional web page at www.bls.gov/regions/new-england. Answers to frequently asked questions about the OES data are available at www.bls.gov/oes/oes_ques.htm. Detailed technical information about the OES survey is available in our Survey Methods and Reliability Statement on the BLS website at www.bls.gov/oes/2015/may/methods_statement.pdf.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: 202-691-5200; Federal Relay Service: 800-877-8339.