



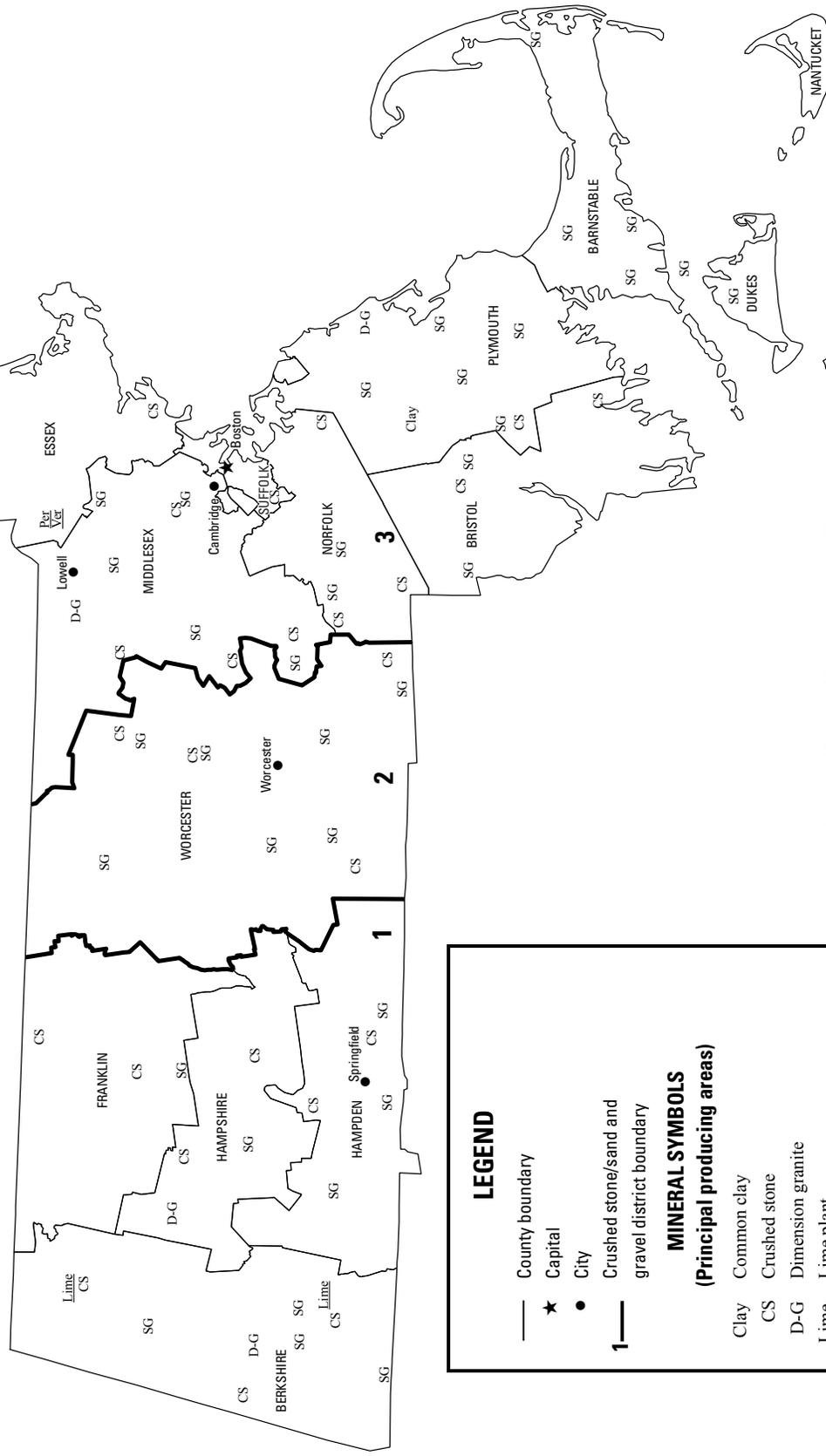
# 2009 Minerals Yearbook

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## MASSACHUSETTS

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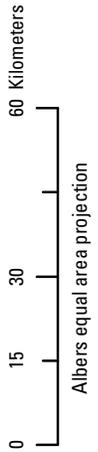


## LEGEND

- County boundary
- ★ Capital
- City
- 1— Crushed stone/sand and gravel district boundary

## MINERAL SYMBOLS (Principal producing areas)

- Clay
- CS Crushed stone
- D-G Dimension granite
- Lime Lime plant
- Per Perlite plant
- SG Construction sand and gravel
- Ver Vermiculite plant



# THE MINERAL INDUSTRY OF MASSACHUSETTS

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Massachusetts Office of the State Geologist for collecting information on all nonfuel minerals.

In 2009, Massachusetts nonfuel raw mineral production<sup>1</sup> was valued at \$214 million, based upon annual U.S. Geological Survey data. This was a \$32 million, or a 13%, decrease from the State's total nonfuel mineral value of \$246 million in 2008, which had decreased by \$47 million, or 16%, from the production value total of \$293 million in 2007. The State decreased in rank to 41st from 40th among the 50 States for total nonfuel mineral production value. The State's leading nonfuel mineral commodities were, in descending order of production value, crushed stone and construction sand and gravel, accounting for 97% of the State's total reported value. Because production and production value data for lime and for common clays have been withheld for certain years, the State's actual total nonfuel mineral values for 2007–09 are higher than those reported in table 1.

<sup>1</sup>The terms “nonfuel mineral production” and related “values” encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2009 USGS mineral production data published in this chapter are those available as of September 2011. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

In 2009, as in 2008, all of the State's mineral commodities experienced a decline in quantities produced and production value. In descending order, the greatest decreases were seen with construction sand and gravel, crushed stone, and dimension stone, for a combined decrease of 2.5 million metric tons (Mt) from 2008, which followed a combined decrease of 5.7 Mt from 2007–08. Total production values for these commodities were down by more than \$24 million, \$8 million, and \$1 million, or about 22%, 6%, and 14%, respectively, from 2008 (table 1). From 2007 to 2008, production values for these three mineral commodities declined by \$31 million, \$10 million, and \$4.9 million, or almost 22%, 7%, and almost 41%, respectively.

Although production was down 9,000 metric tons (t) from 53,000 in 2008 to 44,000 in 2009, Massachusetts rose in rank to 9th from 10th among the 37 dimension stone-producing States. The State had ranked fourth in the Nation in 2007, producing 98,000 t. Additionally, one company in Essex County produced expanded perlite and exfoliated vermiculite products for horticultural, commercial, and industrial applications from source materials obtained from outside of the State.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN MASSACHUSETTS<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2007		2008		2009	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	31	W	24	W	W	W
Gemstones, natural	NA	1	NA	1	NA	1
Lime	W	W	W	W	W	W
Sand and gravel, construction	15,800	141,000	11,300 <sup>r</sup>	110,000 <sup>r</sup>	9,460	85,600
Stone:						
Crushed	12,300	140,000	11,200 <sup>r</sup>	130,000 <sup>r</sup>	10,500	122,000
Dimension	98	12,000	53	7,140	44	6,130
Total	XX	293,000	XX	246,000 <sup>r</sup>	XX	214,000

<sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from “Total.” XX Not applicable.

<sup>1</sup>Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

<sup>2</sup>Data are rounded to three significant digits; may not add to totals shown.

TABLE 2  
MASSACHUSETTS: CRUSHED STONE SOLD OR USED, BY TYPE<sup>1</sup>

Type	2008			2009		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone <sup>2</sup>	4	768	\$16,900	4	1,560	\$28,100
Granite	11	3,300	35,200	11	3,240	34,000
Traprock	19	5,570	59,400	17	4,510	46,700
Miscellaneous stone	8 <sup>r</sup>	1,550 <sup>r</sup>	18,000 <sup>r</sup>	10	1,230	13,300
Total	XX	11,200 <sup>r</sup>	130,000 <sup>r</sup>	XX	10,500	122,000

<sup>r</sup>Revised. XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes limestone-dolomite reported with no distinction between the two.

TABLE 3  
MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2009, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	W	W
Other coarse aggregate	W	W
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
Railroad ballast	W	W
Other graded coarse aggregate	W	W
Fine aggregate (-¾ inch), other	W	W
Coarse and fine aggregates:		
Graded road base or subbase	W	W
Crusher run or fill or waste	W	W
Unspecified: <sup>2</sup>		
Reported	5,800	63,500
Estimated	4,410	55,200
Total	10,500	122,000

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
 MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2009, BY  
 USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Construction:</b>						
Coarse aggregate (+1½ inch) <sup>2</sup>	--	--	W	W	W	W
Coarse aggregate, graded <sup>3</sup>	--	--	W	W	W	W
Fine aggregate (-¾ inch) <sup>4</sup>	--	--	--	--	W	W
Coarse and fine aggregates <sup>5</sup>	--	--	W	W	W	W
<b>Unspecified:<sup>6</sup></b>						
Reported	915	14,200	528	4,650	4,360	44,700
Estimated	1,940	28,200	996	11,000	1,480	16,100
<b>Total</b>	<b>2,860</b>	<b>42,400</b>	<b>1,560</b>	<b>16,000</b>	<b>6,130</b>	<b>63,800</b>

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes riprap and jetty stone and other coarse aggregate.

<sup>3</sup>Includes concrete aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast and other graded coarse aggregate.

<sup>4</sup>Includes other fine aggregate.

<sup>5</sup>Includes crusher run or fill or waste and graded road base or subbase.

<sup>6</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009,  
 BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate	1,950	\$18,200	\$9.30
Concrete products (blocks, bricks, pipe, decorative, etc.) <sup>2</sup>	64	547	8.55
Asphaltic concrete aggregates and other bituminous mixtures	330	4,790	14.53
Road base and coverings <sup>3</sup>	310	3,790	12.21
Fill	713	3,820	5.36
Snow and ice control	182	2,280	12.53
Filtration	79	888	11.24
Other miscellaneous uses <sup>4</sup>	78	496	6.36
<b>Unspecified:<sup>5</sup></b>			
Reported	883	6,130	6.94
Estimated	4,870	44,700	9.18
<b>Total or average</b>	<b>9,460</b>	<b>85,600</b>	<b>9.05</b>

<sup>1</sup>Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes road and other stabilization (cement).

<sup>4</sup>Includes golf course, railroad ballast, and roofing granules.

<sup>5</sup>Reported and estimated production without a breakdown by end use.

TABLE 6  
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009, BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products <sup>2</sup>	413	3,960	444	4,110	1,160	10,600	--	--
Asphaltic concrete aggregates and road base materials <sup>3</sup>	202	2,900	380	4,800	59	879	--	--
Fill	297	1,650	258	1,370	157	792	--	--
Snow and ice control	49	699	69	714	64	868	--	--
Other miscellaneous uses <sup>4</sup>	7	81	96	807	54	497	--	--
Unspecified: <sup>5</sup>								
Reported	664	4,140	111	980	29	222	79	785
Estimated	961	8,430	615	5,520	3,290	30,700	--	--
Total	2,590	21,900	1,970	18,300	4,820	44,600	79	785

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes road and other stabilization (cement).

<sup>4</sup>Includes filtration, golf course, railroad ballast, and roofing granules.

<sup>5</sup>Reported and estimated production without a breakdown by end use.