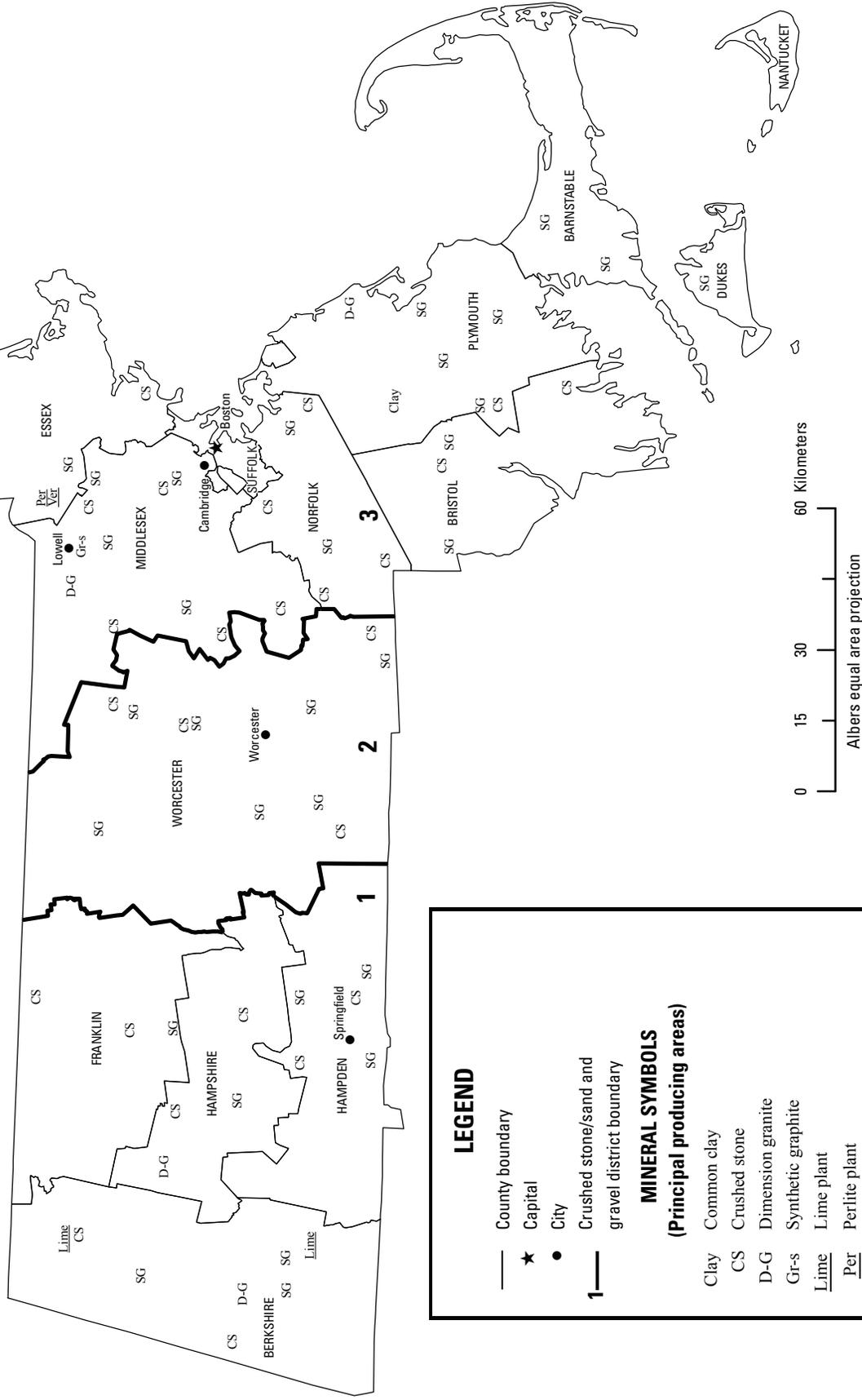




2012–2013 Minerals Yearbook

MASSACHUSETTS [ADVANCE RELEASE]

MASSACHUSETTS



THE MINERAL INDUSTRY OF MASSACHUSETTS

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

In 2013, the value of nonfuel mineral production¹ in the State of Massachusetts was \$277 million², 0.4% of the total U.S. nonfuel mineral production, ranking it 40th in the Nation. In 2012, the value was \$254 million², 0.3% of the U.S. total nonfuel mineral production, ranking it 42d among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Massachusetts had a value of \$41 compared with the national average of \$238. In 2012, the per capita value was \$38 compared with the national average of \$241.

The value of nonfuel mineral production in Massachusetts² for the years 2006 through 2013 was as follows (in millions of dollars): \$290 (2006), \$293 (2007), \$246 (2008), \$221 (2009), \$232 (2010), \$235 (2011), \$254 (2012), and \$277 (2013).

In 2013, there were 719 employees in nonfuel mineral mines in Massachusetts and 292 in mills and preparation plants. In 2012, the corresponding numbers were 702 in nonfuel mineral mines and 258 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 11; 2014, p. 11). In 2013, the average annual wage in Massachusetts for all mining was \$55,877 compared with \$62,317 for all industries. In 2012, the

corresponding figures were \$56,188 and \$61,471, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2013 and 2012, on the basis of production quantity, Massachusetts was fourth in the production of dimension stone out of 33 and 34 producing States, respectively, and also produced common clay, construction sand and gravel, crushed stone, lime, and natural gemstones (table 1).

Commodity Review

Industrial Minerals

Industrial minerals mining activity was as follows:

In 2013, according to USGS data, there were 42 active crushed stone operations in Massachusetts with 37 quarries and 37 processing plants. In 2012, the corresponding figures were 47 operations with 40 quarries and 40 processing plants. In 2013, there were 96 active construction sand and gravel operations in the State, including 12 dredging operations. In 2012, according to USGS data, there were 100 operations with no dredging operations.

References Cited

- U.S. Mine Safety and Health Administration, 2013, Mine injury and worktime, quarterly, January–December 2012, Final, closeout edition, 33 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20125.pdf)
- U.S. Mine Safety and Health Administration, 2014, Mine injury and worktime, quarterly, January–December 2013, Final, closeout edition, 34 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf)

¹The 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 USGS mineral production data published in this chapter are those available as of February 2016. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at <http://minerals.usgs.gov/minerals>.

²Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

TABLE 1
NONFUEL MINERAL PRODUCTION IN MASSACHUSETTS^{1,2}

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	17	W	18	W	W	W
Gemstones, natural	NA	1	NA	1	NA	1
Lime	W	W	W	W	W	W
Sand and gravel, construction	9,270 ^r	93,800 ^r	9,470	88,200	11,300	103,000
Stone:						
Crushed	10,500 ^r	125,000 ^r	10,800	131,000	10,100	130,000
Dimension	83	16,200	145	34,200	148	43,500
Total	XX	235,000 ^r	XX	254,000	XX	277,000

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from “Total.” XX Not applicable.

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

²Data are rounded to three significant digits; may not add to totals shown.

TABLE 2
MASSACHUSETTS: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE¹

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone ²	3	848	\$18,300	\$21.58	3	759	\$18,100	\$23.84
Dolomite	1	923	12,000	13.02	1	809	9,840	12.17
Granite	10	3,020	34,800	11.52	8	3,000	35,900	11.96
Traprock	15	4,130	45,000	10.91	15	3,630	43,700	12.03
Miscellaneous stone	11	1,910	21,300	11.14	10	1,880	22,300	11.90
Total or average	XX	10,800	131,000	12.14	XX	10,100	130,000	12.89

XX Not applicable.

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

²Includes limestone-dolomite reported with no distinction between the two kinds of stone.

TABLE 3
MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS BY USE¹

Use	2012			2013		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Riprap and jetty stone	30	\$376	\$12.53	51	\$634	\$12.43
Coarse aggregate, graded:						
Concrete aggregate, coarse	416	4,310	10.36	W	W	W
Bituminous aggregate, coarse	W	W	W	W	W	W
Railroad ballast	W	W	W	W	W	W
Unspecified graded coarse aggregate	64	735	11.48	28	433	15.33
Fine aggregate (-¾ inch):						
Stone sand, concrete	--	--	--	318	3,680	11.55
Stone sand, bituminous mix or seal	W	W	W	W	W	W
Screening, undesignated	W	W	W	69	839	12.17
Unspecified fine aggregate	--	--	--	38	338	8.99
Coarse and fine aggregates:						
Graded road base or subbase	W	W	W	605	5,710	9.44
Crusher run or fill or waste	200	2,700	13.51	121	1,540	12.71
Agricultural:						
Agricultural Limestone	W	W	W	W	W	W
Poultry grit and mineral food	W	W	W	W	W	W
Chemical and metallurgical:						
Lime manufacture	W	W	W	W	W	W
Special:						
Other fillers or extenders	W	W	W	W	W	W
Other miscellaneous uses and specified uses not listed	41	1,710	41.58	50	1,900	38.27
Unspecified:²						
Reported	1,940	23,100	11.89	1,580	19,200	12.17
Estimated	5,470	60,300	11.03	4,870	59,000	12.13
Total or average	10,800	131,000	12.14	10,100	130,000	12.89

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

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

²Reported and estimated production without a breakdown by end use.

TABLE 4
 MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2012, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch) ²	9	111	W	W	W	W
Coarse aggregate, graded ³	14	144	W	W	W	W
Fine aggregate (-¾ inch) ⁴	--	--	W	W	W	W
Coarse and fine aggregates ⁵	91	1,230	W	W	W	W
Other construction materials	--	--	--	--	--	--
Agricultural ⁶	W	W	W	W	--	--
Chemical and metallurgical ⁷	W	W	W	W	--	--
Special ⁸	W	W	W	W	--	--
Other miscellaneous uses and specified uses not listed ⁹	21	1,460	20	250	--	--
Unspecified: ¹⁰						
Reported	923	12,000	437	4,820	580	6,230
Estimated	1,370	15,100	1,050	11,600	3,040	33,600
Total	2,740	41,200	1,510	16,700	6,570	73,500

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

¹Data are rounded to no more than three significant digits.

²Includes riprap and jetty stone.

³Includes concrete aggregate (coarse), bituminous aggregate (coarse), railroad ballast, and unspecified graded coarse aggregate.

⁴Includes stone sand (bituminous mix or seal) and screening (undesigned).

⁵Includes graded road base or subbase and crusher run.

⁶Includes agricultural limestone, and poultry grit and mineral food.

⁷Includes lime manufacture.

⁸Includes other fillers or extenders.

⁹Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

¹⁰Reported and estimated production without a breakdown by end use.

TABLE 5
MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2013, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch) ²	--	--	W	W	W	W
Coarse aggregate, graded ³	--	--	W	W	W	W
Fine aggregate (-¾ inch) ⁴	--	--	--	--	795	9,620
Coarse and fine aggregates ⁵	W	W	W	W	716	7,120
Other construction materials	--	--	--	--	--	--
Agricultural ⁶	W	W	W	W	--	--
Chemical and metallurgical ⁷	W	W	W	W	--	--
Special ⁸	W	W	W	W	--	--
Other miscellaneous uses and specified uses not listed ⁹	20	1,530	30	368	--	--
Unspecified: ¹⁰						
Reported	809	9,840	322	3,920	446	5,430
Estimated	1,300	15,800	1,000	12,100	2,570	31,100
Total	2,410	38,400	1,370	16,600	6,300	74,800

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

¹Data are rounded to no more than three significant digits.

²Includes riprap and jetty stone.

³Includes concrete aggregate (coarse), bituminous aggregate (coarse), railroad ballast, and unspecified graded coarse aggregate.

⁴Includes stone sand (bituminous mix or seal) and screening (undesignated).

⁵Includes graded road base or subbase and crusher run.

⁶Includes agricultural limestone, and poultry grit and mineral food.

⁷Includes lime manufacture.

⁸Includes other fillers or extenders.

⁹Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

¹⁰Reported and estimated production without a breakdown by end use.

TABLE 6
MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	1,290	\$11,900	\$9.22
Concrete products (blocks, bricks, pipe, decorative, and so forth) ²	74	637	8.61
Asphaltic concrete aggregates and other bituminous mixtures	229	3,320	14.50
Road base and coverings ³	321	4,190	13.05
Fill	423	2,070	4.89
Snow and ice control	70	837	11.96
Other miscellaneous uses ⁴	113	1,050	9.29
Unspecified: ⁵			
Reported	57	598	10.49
Estimated	6,900	63,600	9.22
Total or average	9,470	88,200	9.31

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

²Includes plaster and gunite sands.

³Includes road and other stabilization (cement and lime).

⁴Includes filtration, and railroad ballast.

⁵Reported and estimated production without a breakdown by end use.

TABLE 7
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
 BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,110	\$21,900	\$10.40
Concrete products (blocks, bricks, pipe, decorative, and so forth) ²	129	1,120	8.70
Asphaltic concrete aggregates and other bituminous mixtures	559	4,530	8.10
Road base and coverings ³	577	7,070	12.25
Fill	1,030	5,920	5.73
Snow and ice control	212	2,000	9.45
Other miscellaneous uses ⁴	197	1,610	8.15
Unspecified: ⁵			
Reported	584	5,360	9.17
Estimated	5,870	53,800	9.16
Total or average	11,300	103,000	9.17

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

²Includes plaster and gunite sands.

³Includes road and other stabilization (cement).

⁴Includes filtration, and railroad ballast.

⁵Reported and estimated production without a breakdown by end use.

TABLE 8
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products ²	W	W	W	W	722	5,400
Asphaltic concrete aggregates and road base materials ³	W	W	W	W	135	2,050
Fill	46	368	198	993	178	709
Snow and ice control	10	132	58	671	2	34
Other miscellaneous uses ⁴	8	88	77	633	29	330
Unspecified: ⁵						
Reported	38	406	--	--	19	192
Estimated	913	8,430	1,480	13,600	4,510	41,600
Total	1,640	17,500	2,240	20,400	5,590	50,300

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

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

²Includes plaster and gunite sands.

³Includes road and other stabilization (cement and lime).

⁴Includes filtration and railroad ballast.

⁵Reported and estimated production without a breakdown by end use.

TABLE 9
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3 and unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products ²	197	2,510	W	W	W	W
Asphaltic concrete aggregates and road base materials ³	142	823	W	W	W	W
Fill	122	932	741	4,220	171	771
Snow and ice control	18	227	147	1,440	47	333
Other miscellaneous uses ⁴	8	126	148	998	41	482
Unspecified: ⁵						
Reported	224	1,780	--	--	360	3,570
Estimated	1,050	9,270	997	9,180	3,830	35,400
Total	1,760	15,700	3,180	27,100	6,340	60,500

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

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

²Includes plaster and gunite sands.

³Includes road and other stabilization (cement).

⁴Includes filtration and railroad ballast.

⁵Reported and estimated production without a breakdown by end use.