

THE MINERAL INDUSTRY OF MASSACHUSETTS

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

In 1997, for the third consecutive year, Massachusetts ranked 39th in the Nation in total nonfuel mineral production value,¹ according to the U.S. Geological Survey (USGS). The estimated value for 1997 was \$213 million, about a 7% increase from that

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or 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 1997 USGS mineral production data published in this chapter are estimates as of January 1998. For some commodities, such as construction sand and gravel and crushed stone, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may be retrieved over the Internet at <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at <http://minerals.er.usgs.gov/minerals/>.

of 1996. This followed a 5.2% increase from 1995 to 1996 (based on final 1996 data). The State accounted for about 0.5% of the U.S. total nonfuel mineral production value.

The leading mineral commodities by value in Massachusetts were construction sand and gravel and crushed stone, respectively. Dimension stone was third. In 1997, a 9% or about an \$8 million increase in the value of construction sand and gravel, plus a 6% or \$5 million increase in crushed stone accounted for most of the State's rise in nonfuel mineral production value. Only peat showed a small decrease for the year. In 1996, an increase in construction sand and gravel value led to the State's overall increase in value, moderated somewhat by a decrease in the value of crushed stone. Based on USGS estimates of the quantities produced in the United States during 1997, Massachusetts remained sixth in the production of dimension stone.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN MASSACHUSETTS 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	31	W	W	W	W	W
Gemstones	NA	W	NA	1	NA	1
Sand and gravel, construction	11,700	67,500	14,200	82,500	15,200	90,100
Stone:						
Crushed	11,100	97,400	11,800 3/	91,600 3/	12,500 3/	97,000 3/
Dimension metric tons	77,600	14,600	79,600	15,000	80,000	15,100
Combined value of lime, peat, sand and gravel [industrial (1996-97)], stone [crushed miscellaneous (1996-97)], and values indicated by symbol W	XX	10,700	XX	11,100	XX	11,300
Total	XX	190,000	XX	200,000	XX	213,000

p/ Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" data. XX Not applicable.

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

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

3/ Excludes certain stones; kind and value included with "Combined value" data.

TABLE 2
MASSACHUSETTS: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1995				1996			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	4	2,020	\$21,800	\$10.80	6 2/	2,140 2/	\$23,500 2/	\$10.97 2/
Limestone-dolomite	1	W	W	8.04	--	--	--	--
Dolomite	1	W	W	1.08	--	--	--	--
Granite	9 r/	3,210 r/	29,400 r/	9.15	9	3,200	24,600	7.71
Traprock	17 r/	5,670 r/	44,500 r/	7.84 r/	19	6,450	43,500	6.74
Miscellaneous stone	2	W	W	9.20	(3/)	(3/)	(3/)	(3/)
Total	XX	11,100	97,400	8.76	XX	11,800 3/	91,600 3/	7.77

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

2/ Includes "Limestone-dolomite" reported with no distinction between the two.

3/ Excludes miscellaneous stone from State total to avoid disclosing company proprietary data.

TABLE 3
 MASSACHUSETTS: CRUSHED STONE SOLD OR USED
 BY PRODUCERS IN 1996, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	37	\$316	\$8.54
Riprap and jetty stone	53	450	8.49
Filter stone	68	519	7.63
Other coarse aggregate	175	1,180	6.72
Coarse aggregate, graded:			
Concrete aggregate, coarse	317	2,240	7.05
Bituminous aggregate, coarse	4,630	30,600	6.61
Railroad ballast	353	2,270	6.42
Other graded coarse aggregate 3/	813	7,810	9.61
Fine aggregate (-3/8 inch):			
Screening, undesignated	419	2,010	4.79
Other fine aggregate 4/	633	4,300	6.79
Coarse and fine aggregates:			
Graded road base or subbase	354	2,130	6.01
Crusher run or fill or waste	434	3,450	7.95
Other construction materials 5/	182	2,140	11.77
Agricultural:			
Agricultural limestone	W	W	14.00
Poultry grit and mineral food	W	W	14.00
Chemical and metallurgical, lime manufacture	W	W	6.75
Special, other fillers or extenders	W	W	58.04
Unspecified: 6/			
Actual	W	W	9.11
Estimated	2,730	23,200	8.49
Total	11,800	91,600	7.77

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

1/ Includes dolomite, granite, limestone, limestone-dolomite, and traprock.

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

3/ Includes bituminous surface-treatment aggregate.

4/ Includes stone sand (bituminous mix or seal) and stone sand (concrete).

5/ Includes building products and roofing granules.

6/ Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 4
 MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996,
 BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) 2/	W	W	148	1,120	W	W
Coarse aggregate, graded 3/	W	W	912	5,990	W	W
Fine aggregate (-3/8 inch) 4/	W	W	49	191	W	W
Coarse and fine aggregate 5/	W	W	265	1,280	W	W
Other construction materials 6/	1,520	10,900	--	--	5,580	40,000
Agricultural 7/	(8/)	(8/)	--	--	--	--
Chemical and metallurgical 9/	(8/)	(8/)	--	--	--	--
Special 10/	(8/)	(8/)	(8/)	(8/)	--	--
Unspecified: 11/						
Actual	--	--	--	--	(8/)	(8/)
Estimated	1,580	13,800	(8/)	(8/)	(8/)	(8/)
Total	3,600	33,000	1,880	12,900	6,310	45,800

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."

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

2/ Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.

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

4/ Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesigned), and other fine aggregate.

5/ Includes graded road base or subbase and crusher run (select material or fill).

6/ Includes building products and roofing granules.

7/ Includes agricultural limestone, and poultry grit and mineral food.

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

9/ Includes lime manufacture.

10/ Includes other fillers or extenders.

11/ Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 5
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,
 BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand)	2,930	\$18,300	\$6.25
Plaster and gunit sands	46	467	10.15
Concrete products (blocks, bricks, pipe, decorative, etc.)	66	476	7.21
Asphaltic concrete aggregates and other bituminous mixtures	792	4,040	5.11
Road base and coverings 2/	1,300	6,410	4.93
Fill	1,620	6,770	4.19
Snow and ice control	377	1,880	4.98
Railroad ballast	63	229	3.63
Other miscellaneous uses 3/	1,050	9,290	8.82
Unspecified: 4/			
Actual	1,270	3,510	2.76
Estimated	4,730	31,100	6.58
Total or average	14,200	82,500	5.79

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

2/ Includes road and other stabilization (lime).

3/ Includes filtration.

4/ Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 6
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,
 BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	579	4,310	1,070	6,780	1,390	8,160
Asphaltic concrete aggregates and road base materials 3/	811	4,750	1,510	6,790	1,390	5,680
Snow and ice control	62		114	342	201	1,140
Railroad ballast	--	--	63	229	--	--
Other miscellaneous uses 4/	64	286	470	2,880	519	6,130
Unspecified: 5/						
Actual	--	--	899	1,490	373	2,020
Estimated	730	3,120	405	2,340	3,590	25,600
Total	2,250	12,900	4,530	20,800	7,470	48,800

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

2/ Includes plaster and gunite sands.

3/ Includes fill and road and other stabilization (lime).

4/ Includes filtration.

5/ Includes production reported without a breakdown by end use and estimates for nonrespondents.