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 1998, the preliminary estimated value[1] of nonfuel mineral production for Massachusetts was $192 million, according to the U.S. Geological Survey (USGS). This was a marginal decrease from that of 1997,[2] following a 3.5% decrease from 1996 to 1997. The leading mineral commodities by value were crushed stone, construction sand and gravel, and dimension stone. (All mineral commodity listings are by descending order of value or magnitude of change in value.) In 1998, the largest changes included a more than $5 million increase in construction sand and gravel that was slightly less than the decrease in dimension stone; all other changes were relatively small (table 1). Crushed stone, common clay, and lime showed small, while miscellaneous crushed stone and peat decreased. Gemstones and industrial sand and gravel remained the same. In 1997, a decrease in the value of construction sand and gravel accounted for most of the State's overall decrease that was moderated somewhat by an increase in the value of crushed stone. Based on USGS estimates of the quantities of dimension stone produced in the United States in 1998, Massachusetts decreased from third to sixth.[2]

[1]The 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 1998 USGS mineral production data published in this chapter are preliminary estimates as of February 1999 and are expected to change. 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. A telephone listing for the specialists may be retrieved over the Internet at http://minerals.usgs.gov/minerals/contacts/comdir.html; by using MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset (request Document #1000 for a telephone listing of all mineral commodity specialists); or by calling USGS information at (703) 648-4000 for the specialist's name and number. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at http://minerals.usgs.gov/minerals; facsimile copies may be obtained from MINES FaxBack.

[2]Values, percentage calculations, and rankings for 1997 may vary from the *Minerals Yearbook, Area Reports: Domestic 1997, Volume II*, owing to the revision of preliminary 1997 to final 1997 data. Data for 1998 are preliminary and expected to change, while related rankings may also be subject to change.

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

(Thousand metric tons and thousand dollars unless otherwise specified)

	1996		1997		1998 p/	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	14,200	82,500	13,500	71,500	14,000	76,600
Stone:						
Crushed	11,800 3/	91,600 3/	12,200 3/	91,300 3/	13,100	91,700
Dimension metric tons	79,600	15,000	101,000	18,200	73,900	12,800
Combined values of clays (common), lime, peat (1996-97), sand and gravel (industrial), stone miscellaneous (1996-97)], and values indicated by symbol W	XX	11,100	XX	11,700	XX	11,100
Total	XX	200,000	XX	193,000	XX	192,000

p/ Preliminary. NA Not available. 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 values" data.

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

Kind	1996 Number of quarries	1996 Quantity (thousand metric tons)	1996 Value (thousands)	1996 Unit value	1997 Number of quarries	1997 Quantity (thousand metric tons)	1997 Value (thousands)	1997 Unit value
Limestone 2/	6	2,140	$23,500	$10.97	7	2,050	$22,200	$10.83
Granite	10 r/	3,600 r/	27,100 r/	7.53	9	3,190	20,000	6.27
Traprock	18 r/	6,050 r/	41,000 r/	6.78 r/	17	7,000	49,100	7.02
Miscellaneous stone	1	(3/)	(3/)	(3/)	1	(3/)	(3/)	(3/)
Total	XX	11,800	91,600	7.77	XX	12,200	91,300	7.46

r/ Revised. XX Not applicable.
1/ Data are rounded to three significant digits, except unit value; may not add to totals shown.
2/ Includes "limestone-dolomite," reported with no distinction between the two.
3/ Excluded from State total to avoid disclosing company proprietary data.

TABLE 3
MASSACHUSETTS: CRUSHED STONE SOLD OR USED
BY PRODUCERS IN 1997, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	27	$198	$7.33
Filter stone	219	1,610	7.35
Other coarse aggregate 3/	93	879	9.45
Coarse aggregate, graded:			
Concrete aggregate, coarse	637	4,650	7.30
Bituminous aggregate, coarse	4,080	24,900	6.11
Railroad ballast	508	3,690	7.27
Other graded coarse aggregate 4/	552	4,210	7.62
Fine aggregate (-3/8 inch):			
Stone sand, concrete	221	1,420	6.43
Other fine aggregate 5/	909	5,330	5.86
Coarse and fine aggregates:			
Graded road base or subbase	380	2,590	6.81
Crusher run or fill or waste	405	2,130	5.27
Unpaved road surfacing	181	1,070	5.93
Other coarse and fine aggregates	127	1,010	7.92
Special: Roofing granules	W	W	10.34
Unspecified: 6/			
Actual	W	W	9.11
Estimated	3,830	36,900	9.63
Total	12,200	91,300	7.46

W Withheld to avoid disclosing company proprietary data; included in "Total."
1/ Data are rounded to three significant digits, except unit value; may not add to totals shown.
2/ Includes dolomite, granite, limestone, limestone-dolomite, and traprock; excludes stone.
3/ Includes macadam.
4/ Includes bituminous surface-treatment aggregate.
5/ Includes stone sand (bituminous mix or seal) and screening (undesignated).
6/ Includes reported and estimated production without a breakdown by end use.

TABLE 4
MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1997,
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	W	W
Coarse aggregate, graded 3/	W	W	W	W	3,530	24,200
Fine aggregate (-3/8 inch) 4/	W	W	205	1,280	618	3,440
Coarse and fine aggregate 5/	W	W	484	2,790	341	2,440
Unspecified: 6/						
Actual	--	--	--	--	W	W
Estimated	2,020	21,800	W	W	1,100	8,840
Total	3,850	33,700	2,520	16,500	5,870	41,100

W Withheld to avoid disclosing company proprietary data; included in "Total."
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 (undesignated), and other fine aggregate.
5/ Includes graded road base or subbase and crusher run (select material or fill), unpaved road surfacing, and other coarse and fine aggregates.
6/ Includes reported and estimated production without a breakdown by end use.

TABLE 5
MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1997,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand)	4,000	$24,400	$6.10
Plaster and gunite sands	76	670	8.82
Concrete products (blocks, bricks, pipe, decorative, etc.)	21	169	8.05
Asphaltic concrete aggregates and other bituminous mixtures 2/	389	3,030	7.78
Road base and coverings	1,240	6,530	5.27
Fill	2,510	6,870	2.73
Snow and ice control	538	2,430	4.51
Railroad ballast	50	165	3.30
Other miscellaneous uses 3/	156	614	3.94
Unspecified: 4/			
Actual	1,220	3,670	3.01
Estimated	3,270	23,000	7.02
Total or average	13,500	71,500	5.31

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 reported and estimated production without a breakdown by end use.

TABLE 6
MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1997,
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	843	4,200	805	4,790	2,360	15,500
Concrete products 2/	5	81	32	226	60	532
Asphaltic concrete aggregate 3/	169	2,100	174	721	46	207
Road base and coverings	290	1,570	423	2,120	526	2,840
Fill	590	851	737	2,000	1,190	4,020
Snow and ice control	93	585	248	796	197	1,040
Railroad ballast	--	--	50	165	--	--
Other miscellaneous uses 4/	W	W	W	W	W	W
Unspecified: 5/						
Actual	W	W	W	W	W	W
Estimated	490	1,870	71	333	2,710	20,800
Total	2,480	11,300	3,570	12,900	7,430	47,400

W Withheld to avoid disclosing company proprietary data; included in "Total."
1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Includes plaster and gunite sands.
3/ Includes road and other stabilization (lime).
4/ Includes filtration.
5/ Includes reported and estimated production without a breakdown by end use.