



Mineral Industry Surveys

For information, contact:

Valentin V. Tepordei, Crushed Stone Specialist
Telephone: (703) 648-7728, Fax: (703) 648-7975
E-mail: vtepordei@usgs.gov
Wallace P. Bolen, Sand and Gravel Specialist
Telephone: (703) 648-7727, Fax: (703) 648-7975
E-mail: wbolen@usgs.gov
Mailing address:
U.S. Geological Survey
983 National Center
Reston, VA 20192

Steve J. Nakazawa (Data)
Telephone: (703) 648-7981
E-mail: snakazawa@usgs.gov

Nick Muniz (Data)
Telephone: (703) 648-7980
E-mail: nmuniz@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

CRUSHED STONE AND SAND AND GRAVEL IN THE SECOND QUARTER 2003

An estimated 429 million metric tons of *crushed stone* were produced and shipped for consumption in the United States in the second quarter of 2003, a decrease of 3.2% compared with the same period of 2002. The estimated output of *crushed stone* produced for consumption in the first 6 months of 2003 was 697 million metric tons, a decrease of 4% compared with the same period of 2002.

The estimated U.S. output of *construction sand and gravel* produced and shipped for consumption in the second quarter of 2003 was 322 million metric tons, a slight decrease compared with the same period of 2002. The estimated output of *construction sand and gravel* produced for consumption in the first 6 months of 2003 was 503 million metric tons, a decrease of 1.2% compared with the same period of 2002.

The above estimates are based on information reported to the U.S. Geological Survey quarterly sample survey by the *crushed stone* and *construction sand and gravel* producers.

The decrease in the production-for-consumption of *crushed stone* and *construction sand and gravel* in the first half of 2003 were mostly due to a reduction in the level of activity in public, private, and commercial construction work as well as very unfavorable weather conditions in some regions of the country.

In the second quarter of 2003, there was an increase of 1.1% in the U.S. portland cement consumption, compared with the same period of 2002.

The USGS quarterly survey on domestic production of *crushed stone* and *construction sand and gravel* has become a significant indicator of construction activity at the national as well as State level. This survey is a sample survey that generates production-for-consumption estimates by quarters for each State, except Alaska and Hawaii, and each geographic division, based on information reported voluntarily by a limited number of producing companies. Occasionally, the number of companies reporting in an area varies from quarter to quarter, or previously reported data by some companies are revised. As a result of such changes in the size or the composition of the

statistical sample, the estimated quantities for prior quarters are recalculated. The latest release of the quarterly Mineral Industry Surveys contains the most recent estimated totals and percentage changes and supersedes previously published information.

The production-for-consumption estimates for *crushed stone* and *construction sand and gravel* are generated independently for each State and each geographic division, which are treated as separate statistical sample areas. Therefore, some differences may exist between the total for a division and the sum of State totals that are part of the same geographic division.

The leading geographic divisions in the production of *crushed stone* sold or used in the second quarter of 2003 were the South Atlantic with 103 million metric tons, or 24% of the U.S. total, followed by the East North Central with 79.2 million metric tons, or 18.5%, and the West South Central with 53.5 million metric tons, or 12.5%.

The estimated *crushed stone* sold or used in the second quarter of 2003 decreased in all but one geographic division. The largest decreases were recorded in the Mountain (-12.6%), the Pacific (-11.2%), and the West South Central (-4.4%) divisions. Increases in the production of *crushed stone* were recorded only in the East South Central (1.3%) division.

The leading geographic divisions for the total amount of *construction sand and gravel* sold or used in the second quarter of 2003 were the East North Central with 66.6 million metric tons, or 20.7% of the U.S. total, followed by the Pacific with 64.1 million metric tons, or 19.9%, and the Mountain with 58.5 million metric tons, or 18.2%.

The estimated *construction sand and gravel* sold or used in the second quarter of 2003 decreased in six geographic divisions. The largest decreases were recorded in the East South Central (-16.2%), the Middle Atlantic (-10.2%), and the New England (-5%), divisions. Increases were recorded in the Pacific (7.1%), the Mountain (3.1%), and the West Central

(2.2%) divisions. The estimated totals by quarters for the geographic divisions do not include Alaska and Hawaii.

The five leading States in the production-for-consumption of *crushed stone* in the second quarter of 2003 were Texas, Pennsylvania, Florida, Ohio, and Missouri. Their combined total production-for-consumption was 40.9% of the U.S. total. Production-for-consumption of *crushed stone* in the second quarter of 2003 declined in 26 of the 39 estimated States, with the largest decreases occurring in Idaho (-26.4%), New Hampshire (-22.2%), Colorado (-21.9%), Maine (-21.8%), and Wyoming (-19.7%). In the same period, production-for-consumption of *crushed stone* increased in 13 States, the largest increases being recorded in New Jersey (40.5%), Wisconsin (17.9%), Nevada (16.5%), Alabama (13%), and Connecticut (8.5%).

The five leading States in the production-for-consumption of *construction sand and gravel* in the second quarter of 2003 were California, Michigan, Texas, Arizona, and Minnesota. Their combined total production-for-consumption represented 38.1% of the U.S. total. Production-for-consumption of *construction sand and gravel* in the second quarter of 2003 increased in 20 of the 44 estimated States, with the largest

increases occurring in South Dakota (19.1%), California (15.9%), New Mexico (15.9%), Kansas (14.9%), and Montana (13.7%). In the same period, there were significant percentage decreases in North Carolina (-35.5%), Washington (-26.7%), Alabama (-24.1%), Vermont (-23.9%), and Mississippi (-21.5%).

A total of 311 companies representing *crushed stone* and *construction sand and gravel* producers reported production-for-consumption information to the second quarter sample survey. The large participation of the producing companies in this survey is reflected by the high percentage coverage obtained for most geographic divisions and States. The percentage coverage indicates how much of the total estimated production-for-consumption for a State or a geographic division was actually reported by companies participating in this survey and was used to generate the estimated totals for that particular area.

The percent changes between the estimated production-for-consumption for the current quarter and the same quarter of the prior year included in this report are important indicators of the production/consumption trends occurring in a particular area of the country.

TABLE 1
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION¹

(Thousand metric tons and thousand dollars)

Region/Division	2002					2003					
	Quantity				Value total ²	Quantity 1st qtr.	Per- cent change ³	Quantity 2nd qtr.	Per- cent change	Percent cover- age	Number of cos. ⁴
	2nd qtr.	3rd qtr.	4th qtr.	Total ²							
Northeast:											
New England	12,100	14,400	10,500	40,600	\$296,000	3,410	-2.9	12,100	-0.1	62	14
Middle Atlantic	54,300	61,400	42,800	183,000	115,000	19,900	-17.2	52,200	-3.9	61	29
Midwest:											
East North Central	81,500	95,100	76,000	288,000	1,380,000	32,300	-8.4	79,200	-2.8	66	35
West North Central	44,500	49,500	40,000	161,000	849,000	25,500	-5.7	44,000	-1.2	53	35
South:											
South Atlantic	105,000	100,000	85,600	370,000	2,300,000	76,600	-4.1	103,000	-1.8	81	33
East South Central	45,700	49,800	42,700	170,000	1,030,000	34,700	9.6	46,300	1.3	61	15
West South Central	56,000	55,500	46,300	208,000	1,060,000	45,200	-9.7	53,500	-4.4	70	26
West:											
Mountain	18,100	18,200	14,400	61,400	339,000	9,590	-10.5	15,900	-12.6	45	19
Pacific ⁵	26,700	27,500	26,000	101,000	619,000	20,900	1.9	23,700	-11.2	51	25
Total²	443,000	471,000	384,000	1,590,000	9,090,000	268,000	-5.1	429,000	-3.2	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding, and differences between projected totals by States and by divisions.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵Does not include Alaska and Hawaii.

⁶Includes Alaska, Hawaii, and "Other" totals; see table 2, footnote 7.

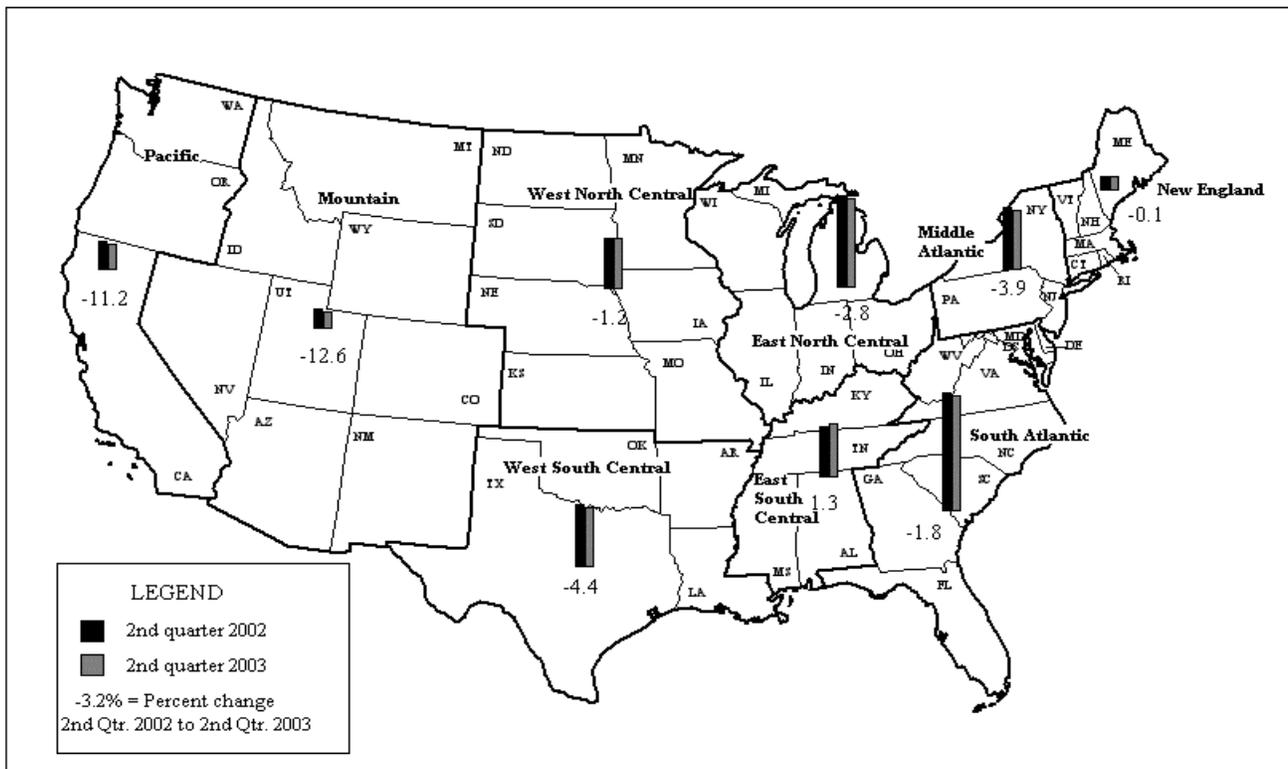


Figure 2 - Second quarter crushed stone production by geographic division

TABLE 2
CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

(Thousand metric tons and thousand dollars)

State	2002					2003					
	Quantity				Value total ²	Quantity 1st qtr.	Per- cent change ³	Quantity 2nd qtr.	Per- cent change ³	Percent cover- age	Number of cos. ⁴
	2nd qtr.	3rd qtr.	4th qtr.	Total ²							
Alabama	14,200	15,000	12,600	53,000	\$337,000	13,100	17.1	16,000	13.0	59	11
Alaska	(5)	(5)	(5)	1,500	8,400	(5)	(5)	(5)	(5)	(5)	(5)
Arizona	(6)	(6)	(6)	8,200	49,900	(6)	(6)	(6)	(6)	(6)	(6)
Arkansas	9,290	9,760	7,510	33,400	171,000	5,780	-15.4	8,800	-5.3	57	9
California	17,200	16,600	16,600	63,500	420,000	13,000	-3.3	15,300	-10.7	58	15
Colorado	4,870	4,780	3,780	16,000	104,000	1,940	-24.3	3,800	-21.9	78	7
Connecticut	3,000	3,970	3,020	10,700	92,000	802	11.1	3,250	8.5	77	4
Delaware	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Florida	26,900	26,100	25,400	104,000	595,000	24,900	-2.8	28,300	5.3	66	10
Georgia	20,400	19,300	16,500	73,300	452,000	16,400	-3.9	20,100	-1.7	95	7
Hawaii	(5)	(5)	(5)	7,000	69,200	(5)	(5)	(5)	(5)	(5)	(5)
Idaho	2,200	860	1,060	5,200	22,700	579	-46.0	1,620	-26.4	30	3
Illinois	22,000	25,900	21,800	79,100	459,000	8,990	-4.7	20,400	-7.3	62	10
Indiana	15,700	18,800	14,300	57,200	278,000	7,520	-11.1	16,000	2.1	76	13
Iowa	11,400	11,200	10,100	37,500	203,000	4,090	-15.4	11,200	-1.2	52	7
Kansas	5,970	5,870	5,590	22,000	109,000	4,020	-11.9	5,820	-2.5	61	9
Kentucky	13,400	17,400	16,100	57,000	320,000	11,000	9.6	14,400	7.1	51	8
Louisiana	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)	(6.7)
Maine	1,220	1,480	946	4,200	24,600	608	9.5	957	-21.8	54	4
Maryland	6,890	6,830	5,340	23,800	145,000	3,530	-25.4	5,960	-13.5	107	9
Massachusetts	4,650	5,140	3,830	15,200	129,000	1,350	-14.7	4,540	-2.4	64	5
Michigan	11,700	13,800	12,200	40,800	154,000	2,720	-12.8	11,600	-1.1	76	9
Minnesota	2,950	4,010	2,440	9,700	57,900	434	45.7	2,460	-16.7	54	4
Mississippi	(6)	(6)	(6)	2,000	21,000	(6)	(6)	(6)	(6)	(6)	(6)
Missouri	19,700	24,900	19,200	79,500	406,000	15,600	-0.7	21,200	7.4	43	13
Montana	(6)	(6)	(6)	3,200	13,300	(6)	(6)	(6)	(6)	(6)	(6)
Nebraska	1,820	1,640	1,470	6,100	44,700	1,110	-5.9	1,680	-7.8	107	6
Nevada	2,590	2,680	2,190	9,700	48,600	2,270	1.0	3,010	16.5	26	4
New Hampshire	1,710	1,760	1,220	5,000	21,900	322	0.7	1,330	-22.2	68	4
New Jersey	5,410	8,910	4,480	22,000	156,000	3,520	10.3	7,610	40.5	52	5
New Mexico	1,740	1,760	1,070	5,900	37,100	1,480	11.0	1,740	0.0	25	4
New York	17,900	21,300	15,000	60,600	410,000	4,250	-33.3	16,200	-10.0	67	9
North Carolina	20,000	18,200	14,800	65,800	470,000	12,400	-3.1	18,500	-7.5	92	11
North Dakota	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)	(5.7)
Ohio	23,200	25,800	19,600	78,800	358,000	9,390	-8.2	21,800	-6.1	74	12
Oklahoma	10,700	11,100	8,970	40,700	179,000	8,340	-16.3	11,300	6.5	73	12
Oregon	6,110	7,460	5,700	23,200	114,000	5,160	31.2	4,980	-18.5	44	11
Pennsylvania	30,800	31,300	23,200	100,000	580,000	12,600	-14.6	28,700	-6.8	60	20
Rhode Island	(6)	(6)	(6)	1,200	7,100	(6)	(6)	(6)	(6)	(6)	(6)
South Carolina	7,400	6,880	5,720	25,800	159,000	6,140	5.8	7,240	-2.1	78	5
South Dakota	1,910	2,070	1,330	6,100	28,900	752	-5.8	1,600	-16.2	110	7
Tennessee	16,900	16,800	13,800	57,800	347,000	10,500	2.4	15,300	-9.3	73	8
Texas	34,400	33,700	28,200	128,000	649,000	29,300	-7.5	31,800	-7.7	72	12
Utah	1,940	2,630	2,070	7,800	38,300	1,300	12.9	2,020	3.7	57	4
Vermont	(6)	(6)	(6)	4,300	21,600	(6)	(6)	(6)	(6)	(6)	(6)
Virginia	18,100	17,400	14,400	62,000	409,000	11,600	-4.0	18,700	3.5	72	10
Washington	3,160	3,530	4,240	13,900	85,100	2,750	-7.5	3,210	1.5	36	4
West Virginia	4,200	4,990	4,070	15,300	67,000	2,170	6.3	4,120	-1.9	56	7
Wisconsin	8,530	11,400	8,000	32,000	134,000	3,960	-3.9	10,000	17.9	24	7
Wyoming	1,700	1,750	1,040	5,400	25,800	732	-19.4	1,360	-19.7	74	5
Other	XX	XX	XX	5,800	56,300	XX	XX	XX	XX	XX	XX
Total	XX	XX	XX	1,590,000	9,090,000	XX	XX	XX	XX	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding and differences between projected totals by States.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵State not included in quarterly survey.

⁶Owing to a low number of reporting companies, no production estimates by quarters were generated.

⁷To avoid disclosing proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

TABLE 3
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY DIVISION¹

(Thousand metric tons and thousand dollars)

Region/Division	2002					2003					
	Quantity				Value total ²	Quantity 1st qtr.	Per- cent change ³	Quantity 2nd qtr.	Per- cent change	Percent cover- age	Number of cos. ⁴
	2nd qtr.	3rd qtr.	4th qtr.	Total ²							
Northeast:											
New England	14,500	17,500	11,500	48,900	\$267,000	5,080	-6.0	13,800	-5.0	25	22
Middle Atlantic	20,200	21,000	14,500	64,600	375,000	8,460	-8.9	18,000	-10.2	30	23
Midwest:											
East North Central	68,300	74,100	54,200	223,000	938,000	24,000	-9.0	66,600	-2.5	40	41
West North Central	33,200	41,400	26,600	110,000	413,000	7,800	-6.0	33,900	2.2	33	33
South:											
South Atlantic	22,600	21,500	18,500	81,500	403,000	17,900	-5.3	22,400	-0.9	50	24
East South Central	14,200	13,600	10,700	48,200	234,000	8,210	-14.8	11,900	-16.2	35	14
West South Central	33,300	29,400	25,100	117,000	572,000	25,600	-12.8	32,600	-2.1	41	13
West:											
Mountain	56,700	60,000	49,900	203,000	1,000,000	40,300	10.3	58,500	3.1	42	23
Pacific ⁵	59,900	63,300	53,500	220,000	1,520,000	43,400	0.3	64,100	7.1	56	22
Total²	323,000	342,000	264,000	1,130,000⁶	5,800,000⁶	181,000	-3.4	322,000	-0.3	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding, and differences between projected totals by States and by divisions.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵Does not include Alaska and Hawaii.

⁶Includes Alaska and Hawaii.

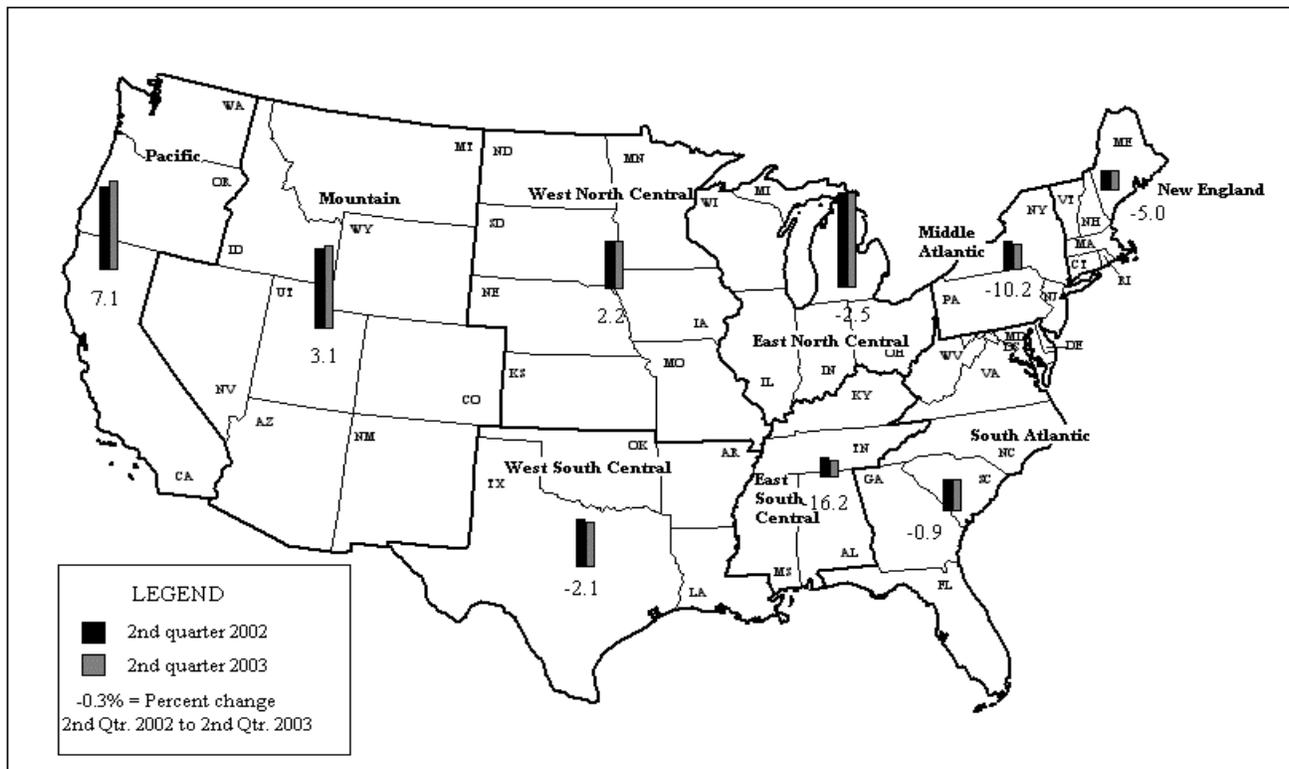


Figure 2 - Second quarter sand and gravel production by geographic division

TABLE 4
SAND AND GRAVEL SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE¹

(Thousand metric tons and thousand dollars)

State	2002				Value total ²	2003					
	Quantity			Total ²		Quantity 1st qtr.	Per- cent change ³	Quantity 2nd qtr.	Per- cent change	Percent cover- age	Number of cos. ⁴
	2nd qtr.	3rd qtr.	4th qtr.								
Alabama	4,490	3,590	2,920	14,100	\$63,500	2,790	-9.9	3,410	-24.1	38	7
Alaska	(5)	(5)	(5)	11,500	67,800	(5)	(5)	(5)	(5)	(5)	(5)
Arizona	12,800	11,700	12,400	49,200	273,000	12,300	0.1	14,300	11.7	70	8
Arkansas	2,970	2,900	2,570	10,900	55,000	2,220	-10.2	3,120	5.1	46	3
California	42,500	45,700	38,800	159,000	1,180,000	32,500	1.5	49,200	15.9	61	15
Colorado	12,200	15,100	9,090	40,700	215,000	5,100	19.5	11,600	-5.3	47	8
Connecticut	2,790	3,060	1,780	8,400	50,000	712	-7.7	2,650	-5.0	40	6
Delaware	(6)	(6)	(6)	3,000	17,500	(6)	(6)	(6)	(6)	(6)	(6)
Florida	6,830	6,610	6,320	26,000	116,000	6,680	7.2	7,750	13.4	64	8
Georgia	2,040	1,740	1,540	7,000	29,100	1,650	-1.6	2,180	6.6	46	6
Hawaii	(5)	(5)	(5)	500	6,000	(5)	(5)	(5)	(5)	(5)	(5)
Idaho	(6)	(6)	(6)	14,200	50,700	(6)	(6)	(6)	(6)	(6)	(6)
Illinois	8,970	10,700	8,370	31,500	143,000	3,600	3.6	9,520	6.0	40	8
Indiana	8,230	7,420	6,360	27,600	120,000	4,990	-10.7	8,400	2.1	52	7
Iowa	4,430	4,970	3,700	14,400	66,100	1,030	-21.2	3,970	-10.5	50	6
Kansas	2,640	2,870	2,280	9,600	27,800	1,760	-2.8	3,040	14.9	21	3
Kentucky	2,730	3,730	2,430	10,300	41,900	936	-33.7	2,400	-12.0	13	3
Louisiana	4,870	4,150	3,930	16,900	81,100	4,210	6.7	5,150	5.6	46	3
Maine	2,570	5,190	2,560	11,000	45,200	671	-1.0	2,840	10.3	13	4
Maryland	3,270	3,210	2,510	11,600	80,500	1,960	-24.8	2,760	-15.7	42	4
Massachusetts	3,780	4,660	3,720	14,600	94,900	2,190	-10.8	3,300	-12.5	18	6
Michigan	25,600	26,500	18,300	76,100	271,000	5,130	-9.9	24,200	-5.4	39	10
Minnesota	13,100	18,100	10,400	42,400	168,000	1,210	56.8	13,700	4.9	40	10
Mississippi	4,570	4,200	3,190	14,900	77,900	2,530	-13.9	3,580	-21.5	45	5
Missouri	2,690	3,230	2,530	9,800	42,100	1,270	-6.8	2,820	4.5	52	4
Montana	5,070	6,060	3,590	16,100	75,300	2,310	67.6	5,770	13.7	41	3
Nebraska	4,180	3,890	2,180	12,600	42,600	1,750	-25.4	4,050	-3.0	22	5
Nevada	9,060	8,900	7,950	33,200	172,000	8,270	13.4	8,510	-6.0	20	5
New Hampshire	2,620	3,200	2,150	9,000	46,100	1,040	0.1	2,690	2.9	36	5
New Jersey	4,770	4,430	3,930	15,800	94,200	2,370	-11.3	4,020	-15.7	29	6
New Mexico	2,910	3,160	2,620	10,900	57,400	2,620	18.4	3,370	15.9	43	5
New York	8,740	10,900	6,150	29,300	155,000	3,550	0.8	8,140	-6.9	25	9
North Carolina	3,320	2,830	2,330	11,300	57,300	2,190	-22.7	2,140	-35.5	26	4
North Dakota	(5)	(5)	(5)	10,300	26,700	(5)	(5)	(5)	(5)	(5)	(5)
Ohio	13,800	17,000	11,700	48,700	252,000	5,370	-13.6	13,300	-3.5	53	15
Oklahoma	3,030	2,860	2,180	10,700	43,200	2,260	-14.2	2,890	-4.4	45	6
Oregon	4,690	6,250	4,480	18,500	108,000	3,190	3.6	4,120	-12.3	48	5
Pennsylvania	6,340	6,250	4,310	19,500	126,000	2,490	-4.6	5,720	-9.7	37	10
Rhode Island	(6)	(6)	(6)	1,300	10,200	(6)	(6)	(6)	(6)	(6)	(6)
South Carolina	2,860	2,610	2,210	9,800	32,200	2,070	-2.7	2,810	-1.8	43	4
South Dakota	3,160	4,040	2,440	10,400	39,200	740	-2.6	3,770	19.1	16	6
Tennessee	2,210	2,580	2,290	8,900	50,500	1,420	-22.4	2,470	12.1	37	5
Texas	22,400	19,500	16,400	78,700	393,000	16,800	-17.6	21,300	-4.9	39	10
Utah	9,240	10,100	8,010	30,300	118,000	4,370	49.0	7,320	-20.8	28	3
Vermont	1,700	1,360	1,130	4,600	20,500	403	-3.1	1,300	-23.9	23	4
Virginia	3,210	3,090	2,520	11,100	61,700	2,380	4.6	3,220	0.2	56	9
Washington	13,100	11,200	10,200	42,400	230,000	7,210	-8.4	9,620	-26.7	41	7
West Virginia	459	604	395	1,700	8,800	265	9.4	475	3.5	79	5
Wisconsin	12,600	12,200	9,770	38,900	152,000	4,220	-4.5	11,500	-8.8	20	9
Wyoming	2,310	3,700	1,790	8,300	41,300	597	17.2	2,340	1.4	15	3
Total	XX	XX	XX	1,130,000	5,800,000	XX	XX	XX	XX	XX	XX

XX Not applicable.

¹Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

²Data may not add to totals shown because of independent rounding and differences between projected totals by States.

³Compared with the same period of the previous year, all percentage changes are calculated using unrounded totals.

⁴Number of companies reporting for the quarterly survey.

⁵State not included in quarterly survey.

⁶Owing to a low number of reporting companies, no production estimates by quarters were generated.