



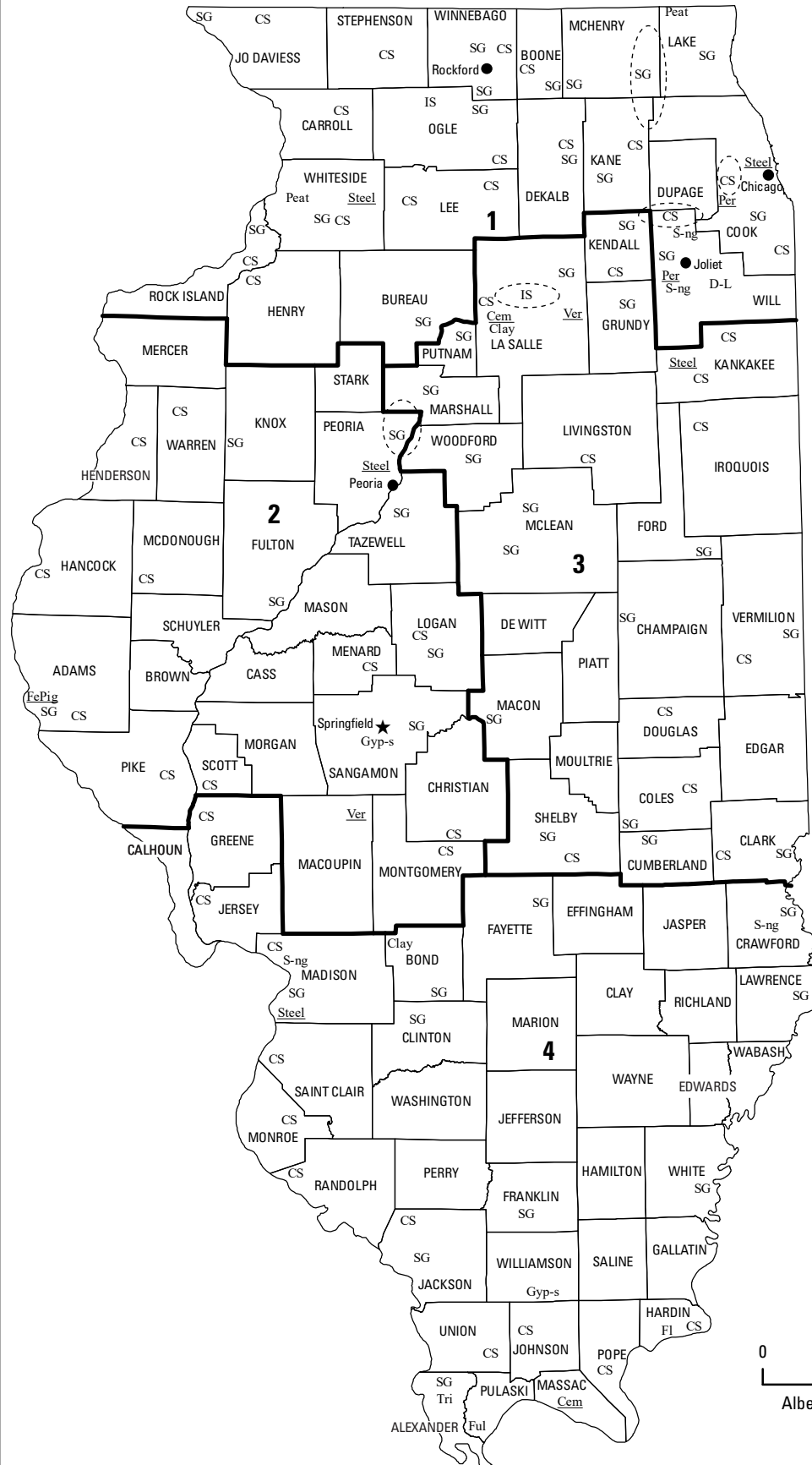
# 2010–2011 Minerals Yearbook

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## ILLINOIS

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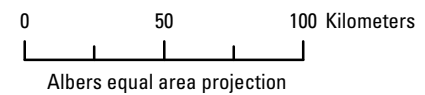


**LEGEND**

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

**MINERAL SYMBOLS  
(Principal producing areas)**

- Cem Cement plant
- Clay Common clay
- CS Crushed stone
- D-L Dimension limestone
- FePig Iron oxide pigments plant
- Fl Fluorspar
- Ful Fuller's earth
- Gyp-s Gypsum - synthetic
- IS Industrial sand
- Peat Peat
- Per Perlite plant
- SG Construction sand and gravel
- S-ng Sulfur (natural gas)
- Steel Steel plant
- Tri Tripoli
- Ver Vermiculite plant
- Concentration of mineral operations



Source: Illinois State Geological Survey/U.S. Geological Survey (2010–11).

# THE MINERAL INDUSTRY OF ILLINOIS

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

In 2011, nonfuel raw mineral production<sup>1</sup> in Illinois was valued at \$1.07 billion based upon annual U.S. Geological Survey (USGS) data, surpassing \$1 billion for the first time since 2008. This was a \$103 million (11%) increase from the State's total nonfuel mineral production value of \$970 million in 2010, which followed a \$5.1 million (0.5%) increase from \$965 million in 2009. Among the 50 States, Illinois rose in rank to 21st in 2011, after falling to 23d in 2010 from 22d in 2009 in terms of total nonfuel mineral production value. The State accounted for 1.4% of the total U.S. value in 2011 and 2010. On a per capita basis, Illinois ranked 38th in the Nation in nonfuel mineral production in 2011 with a value of \$83 per capita, well below the national average of \$240.

Industrial minerals accounted for all of Illinois' nonfuel mineral production in 2011 and 2010. Crushed stone remained the leading commodity, accounting for 46% of the State's total nonfuel mineral production value in 2011 and 50% in 2010. These were followed by, in descending order of value, industrial sand and gravel, 24%; portland cement, 13%; and construction sand and gravel, 12%; and other, 3% (table 1). While crushed stone has been the leading nonfuel commodity in Illinois for decades, 2009 marked the first time since 1993 that portland cement was not the second highest produced commodity, and 2010 was the first year since at least 1981 that the production

value of industrial sand and gravel exceeded that of construction sand and gravel. Common clay, gemstones, dimension stone, montmorillonite (fuller's earth), peat, and tripoli were also produced in Illinois in 2011 and 2010.

Industrial sand and gravel was responsible for Illinois' increase in total nonfuel mineral production value for 2009–2011. This resulted from the increased demand for sand for hydraulic fracturing (frac sand). The production value of industrial sand and gravel totaled \$311 million in 2011, an increase of 123% from \$139 million in 2009. The value of crushed stone in 2011 was approximately \$49.2 million, 4.2% lower than that in 2009. Portland cement also decreased in value by \$15 million, 10% below its value in 2009, and construction sand and gravel decreased in value by \$23 million, 16% lower than in 2009. With the exception of tripoli, the production value of other commodities produced in Illinois either decreased or remained steady during 2011 and 2010.

Illinois was once again the leading State in production for industrial sand and gravel (by quantity) in 2010 before falling to second place in 2011. More than 14% of all industrial sand and gravel produced in the Nation during each year was generated in Illinois. In 2011, the State continued to be the leading tripoli producer out of 4 producing States, ranked third in peat production (reported as sales) out of 13 States, and remained fourth for the production of crushed stone, out of 50 States. After dropping in the portland cement production rankings for several consecutive years, Illinois rose slightly to 14th in 2010 from 15th in 2009, then fell to 15th in 2011. Raw steel continued to be produced in Illinois, but it was processed from ores and scrap metal obtained from other domestic and foreign sources. Other mineral products produced in the State included expanded perlite, iron oxide pigments, and vermiculite products.

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<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 USGS mineral production data published in this chapter are those available as of May 2013. 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>.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN ILLINOIS<sup>1,2</sup>  
(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement, portland	1,490	141,000 <sup>e</sup>	1,620	144,000 <sup>e</sup>	1,400	126,000 <sup>e</sup>
Clays, fuller's earth	W	W	W	W	W	W
Gemstones, natural	NA	10 <sup>r</sup>	NA	10	NA	10
Sand and gravel:						
Construction	22,500	144,000	19,600	129,000	18,800	121,000
Industrial	4,100 <sup>r</sup>	139,000 <sup>r</sup>	5,080	183,000	6,160	311,000
Stone, crushed	56,900 <sup>r</sup>	514,000 <sup>r</sup>	54,300 <sup>r</sup>	487,000	51,400	492,000
Combined values of clays (common), peat, stone (dimension dolomite), tripoli, and values indicated by symbol W	XX	26,900	XX	27,400	XX	23,300
Total	XX	965,000	XX	970,000	XX	1,070,000

<sup>e</sup>Estimated. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data. 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  
ILLINOIS: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE<sup>1</sup>

Type	2009			2010			2011			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone <sup>2</sup>	121 <sup>r</sup>	45,400 <sup>r</sup>	\$388,000 <sup>r</sup>	117	44,200	\$391,000	115	41,400	\$381,000	\$9.20
Dolomite	16	11,100	123,000	15	9,550	91,600	15	9,870	110,000	11.16
Sandstone and quartzite <sup>3</sup>	1 <sup>r</sup>	358 <sup>r</sup>	3,390 <sup>r</sup>	--	--	--	1	23	326	14.31
Miscellaneous stone	2	42	245	4	515	4,120	3	135	827	6.13
Total or average	XX	56,900 <sup>r</sup>	514,000 <sup>r</sup>	XX	54,300	487,000	XX	51,400	492,000	9.57

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

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

<sup>3</sup>Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3  
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2010, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
Coarse aggregate (+1½ inch):		
Macadam	W	W
Riprap and jetty stone	518	6,060
Filter stone	165	1,240
Other coarse aggregate	405	5,990
Coarse aggregate, graded:		
Concrete aggregate, coarse	1,210	10,800
Bituminous aggregate, coarse	739	6,350
Bituminous surface-treatment aggregate	424	4,260
Railroad ballast	54	575
Other graded coarse aggregate	7,090	82,200
Fine aggregate (-¾ inch):		
Stone sand, concrete	98	461
Stone sand, bituminous mix or seal	465	4,170
Screening, undesignated	197	1,130
Other fine aggregate	1,310	9,440
Coarse and fine aggregates:		
Graded road base or subbase	3,400	22,000
Unpaved road surface	606	3,750
Crusher run or fill or waste	128	919
Other coarse and fine aggregates	3,820	26,600
Other construction materials	166	1,580
<b>Agricultural:</b>		
Agricultural, limestone	1,870	9,980
Poultry grit and mineral food	28	688
Other agricultural uses	W	W
<b>Chemical and metallurgical:</b>		
Cement manufacture	W	W
Lime manufacture	W	W
Chemical Stone	136	1,280
<b>Special:</b>		
Mining dusting or acid water treatment	1	38
Asphalt fillers or extenders	W	W
Other fillers or extenders	W	W
Other miscellaneous uses and specified uses not listed	W	W
<b>Unspecified:<sup>2</sup></b>		
Reported	13,800	130,000
Estimated	14,800	135,000
<b>Total</b>	<b>54,300</b>	<b>487,000</b>

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  
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2011, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
Coarse aggregate (+1½ inch):		
Macadam	60	495
Riprap and jetty stone	546	6,070
Filter stone	127	972
Unspecified coarse aggregate	1,000	8,560
Coarse aggregate, graded:		
Concrete aggregate, coarse	692	5,940
Bituminous aggregate, coarse	255	2,320
Bituminous surface-treatment aggregate	341	3,660
Railroad ballast	W	W
Unspecified graded coarse aggregate	6,490	71,800
Fine aggregate (-¾ inch):		
Stone sand, concrete	40	464
Stone sand, bituminous mix or seal	60	700
Screening, undesignated	37	196
Unspecified fine aggregate	1,400	10,000
Coarse and fine aggregates:		
Graded road base or subbase	1,560	10,300
Unpaved road surface	721	4,900
Crusher run or fill or waste	94	549
Unspecified coarse and fine aggregates	3,760	25,900
Unspecified and other construction materials	225	1,790
<b>Agricultural:</b>		
Agricultural, limestone	1,410	10,100
Poultry grit and mineral food	W	W
Unspecified and other agricultural uses	W	W
Chemical and metallurgical, cement manufacture	W	W
<b>Special:</b>		
Mining dusting or acid water treatment	W	W
Asphalt fillers or extenders	8	265
Other fillers or extenders	W	W
Other miscellaneous uses and specified uses not listed	22	166
<b>Unspecified:<sup>2</sup></b>		
Reported	12,700	149,000
Estimated	18,500	167,000
<b>Total</b>	<b>51,400</b>	<b>492,000</b>

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 5  
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2010, 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>	194	3,140	W	W	255	3,130
Coarse aggregate, graded <sup>3</sup>	W	W	W	W	2,050	21,800
Fine aggregate (-¾ inch) <sup>4</sup>	1,110	7,550	8	82	469	3,720
Coarse and fine aggregates <sup>5</sup>	3,780	25,000	806	5,290	1,140	8,030
Other construction materials	42	397	--	--	W	W
Agricultural <sup>6</sup>	373	1,100	221	1,020	675	5,270
Chemical and metallurgical <sup>7</sup>	--	--	--	--	W	W
Special <sup>8</sup>	--	--	W	W	W	W
Other miscellaneous uses and specified uses not listed <sup>9</sup>	--	--	--	--	24	174
Unspecified: <sup>10</sup>						
Reported	W	W	W	W	W	W
Estimated	5,790	55,700	1,140	10,900	3,910	34,200
Total <sup>11</sup>	23,900	224,000	4,720	38,700	10,100	91,700
Use	District 4					
	Quantity	Value				
<b>Construction:</b>						
Coarse aggregate (+1½ inch) <sup>2</sup>	580	5,910				
Coarse aggregate, graded <sup>3</sup>	2,170	19,900				
Fine aggregate (-¾ inch) <sup>4</sup>	490	3,840				
Coarse and fine aggregates <sup>5</sup>	2,230	15,000				
Other construction materials	W	W				
Agricultural <sup>6</sup>	644	3,360				
Chemical and metallurgical <sup>7</sup>	136	1,280				
Special <sup>8</sup>	W	W				
Other miscellaneous uses and specified uses not listed <sup>9</sup>	--	--				
Unspecified: <sup>10</sup>						
Reported	3,820	35,800				
Estimated	3,960	34,700				
Total <sup>11</sup>	14,400	122,000				

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 macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

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

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

<sup>5</sup>Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

<sup>6</sup>Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

<sup>7</sup>Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

<sup>8</sup>Includes mine dusting or acid water treatment, whitening or whitening substance, and other fillers or extenders.

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

<sup>10</sup>Reported and estimated production without a breakdown by end use.

<sup>11</sup>District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 6  
ILLINOIS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2011, 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
Construction:						
Coarse aggregate (+1½ inch) <sup>2</sup>	242	2,990	115	1,350	124	1,280
Coarse aggregate, graded <sup>3</sup>	W	W	405	4,570	1,830	18,400
Fine aggregate (-¾ inch) <sup>4</sup>	W	W	133	969	413	3,600
Coarse and fine aggregates <sup>5</sup>	3,480	22,800	838	5,700	1,090	7,420
Other construction materials	W	W	W	W	W	W
Agricultural <sup>6</sup>	228	1,550	299	1,870	655	6,300
Chemical and metallurgical <sup>7</sup>	--	--	--	--	W	W
Special <sup>8</sup>	--	--	W	W	W	W
Other miscellaneous uses and specified uses not listed <sup>9</sup>	5	28	--	--	W	W
Unspecified: <sup>10</sup>						
Reported	W	W	W	W	W	W
Estimated	6,300	56,200	841	7,590	3,950	36,200
Total	23,200	234,000	5,090	47,400	9,620	90,800
Use	District 4					
	Quantity	Value				
Construction:						
Coarse aggregate (+1½ inch) <sup>2</sup>	1,260	10,500				
Coarse aggregate, graded <sup>3</sup>	921	7,560				
Fine aggregate (-¾ inch) <sup>4</sup>	W	W				
Coarse and fine aggregates <sup>5</sup>	W	W				
Other construction materials	W	W				
Agricultural <sup>6</sup>	275	1,550				
Chemical and metallurgical <sup>7</sup>	--	--				
Special <sup>8</sup>	--	--				
Other miscellaneous uses and specified uses not listed <sup>9</sup>	--	--				
Unspecified: <sup>10</sup>						
Reported	2,780	26,700				
Estimated	7,450	66,800				
Total	13,500	120,000				

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 macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

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

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

<sup>5</sup>Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

<sup>6</sup>Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

<sup>7</sup>Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

<sup>8</sup>Includes mine dusting or acid water treatment, whitening or whitening substance, and other fillers or extenders.

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

<sup>10</sup>Reported and estimated production without a breakdown by end use.



TABLE 7  
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	6,670	\$39,500	\$5.93
Concrete products (blocks, bricks, pipe, decorative, etc.)	409	3,240	7.91
Asphaltic concrete aggregates and other bituminous mixtures	1,040	8,790	8.49
Road base and coverings	451	4,430	9.82
Road and other stabilization (cement)	41	336	8.20
Road and other stabilization (lime)	10	91	9.10
Fill	631	3,340	5.30
Snow and ice control	78	432	5.54
Other miscellaneous uses <sup>2</sup>	340	2,510	7.38
Unspecified: <sup>3</sup>			
Reported	87	572	6.57
Estimated	9,700	64,600	6.66
Total or average	19,600	129,000	6.57

<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 filtration, golf course, and roofing granules.

<sup>3</sup>Reported and estimated production without a breakdown by end use.

TABLE 8  
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	6,730	\$39,200	\$5.82
Concrete products (blocks, bricks, pipe, decorative, etc.)	525	3,400	6.48
Asphaltic concrete aggregates and other bituminous mixtures	965	9,040	9.37
Road base and coverings <sup>2</sup>	1,260	9,980	7.92
Fill	1,210	7,040	5.82
Snow and ice control	172	1,150	6.69
Other miscellaneous uses <sup>3</sup>	496	3,640	7.34
Unspecified: <sup>4</sup>			
Reported	138	1,260	9.13
Estimated	7,260	46,100	6.35
Total or average	18,800	121,000	6.44

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

<sup>2</sup>Includes road and other stabilization (cement and lime).

<sup>3</sup>Includes filtration, golf course, and roofing granules.

<sup>4</sup>Reported and estimated production without a breakdown by end use.

TABLE 9  
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010, 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
Concrete aggregate and concrete products	3,020	19,300	723	4,080	2,240	13,000
Asphaltic concrete aggregates and other bituminous mixtures	429	3,830	21	122	586	4,840
Road base and coverings <sup>2</sup>	141	1,450	67	655	147	1,260
Fill	210	1,260	66	346	170	925
Other miscellaneous uses <sup>3</sup>	346	2,240	20	278	51	419
Unspecified: <sup>4</sup>						
Reported	--	--	14	92	73	480
Estimated	4,620	30,800	2,120	14,100	2,390	15,900
Total <sup>6</sup>	8,770	58,900	3,040	19,700	5,660	36,800

Use	District 4	
	Quantity	Value
Concrete aggregate and concrete products	1,090	6,430
Asphaltic concrete aggregates and other bituminous mixtures	--	--
Road base and coverings <sup>2</sup>	146	1,480
Fill	185	810
Other miscellaneous uses <sup>3</sup>	(5)	(5)
Unspecified: <sup>4</sup>		
Reported	--	--
Estimated	563	3,750
Total <sup>6</sup>	1,990	12,500

-- Zero.

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

<sup>2</sup>Includes road and other stabilization (cement and lime).

<sup>3</sup>Includes filtration, golf course, roofing granules, and snow and ice control.

<sup>4</sup>Reported and estimated production without a breakdown by end use.

<sup>5</sup>Less than ½ unit.

<sup>6</sup>District totals may not add up to the published State total, owing to revisions made after the production of the table and (or) proprietary data being withheld.

TABLE 10  
ILLINOIS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011, 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
Concrete aggregate and concrete products	3,740	23,200	1,066	4,856	1,650	9,970
Asphaltic concrete aggregates and other bituminous mixtures	401	4,340	134	764	514	4,450
Road base and coverings <sup>2</sup>	528	4,610	458	2,970	55	387
Fill	426	2,830	143	658	381	2,380
Other miscellaneous uses <sup>3</sup>	373	2,530	38	378	222	1,570
Unspecified: <sup>4</sup>						
Reported	35	321	10	60	32	197
Estimated	3,560	22,600	1,140	7,360	2,260	14,200
Total	9,060	60,400	2,990	17,000	5,120	33,100

Use	District 4	
	Quantity	Value
Concrete aggregate and concrete products	800	4,600
Asphaltic concrete aggregates and other bituminous mixtures	29	184
Road base and coverings <sup>2</sup>	139	1,320
Fill	255	1,170
Other miscellaneous uses <sup>3</sup>	(5)	309
Unspecified: <sup>4</sup>		
Reported	62	680
Estimated	307	1,970
Total	1,590	10,200

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

<sup>2</sup>Includes road and other stabilization (cement and lime).

<sup>3</sup>Includes filtration, golf course, roofing granules, and snow and ice control.

<sup>4</sup>Reported and estimated production without a breakdown by end use.

<sup>5</sup>Less than ½ unit.