2025 REPORT ON

OHIO MINERAL INDUSTRIES



compiled by Christopher E. Wright

OHIO GEOLOGICAL SURVEY
DEPARTMENT OF NATURAL RESOURCES





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2025 report on Ohio mineral industries: an annual summary of the state's economic geology

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Christopher E. Wright

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGICAL SURVEY
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Columbus 2026

PREFACE

The *2025 Report on Ohio Mineral Industries* continues the efforts of the Ohio Department of Natural Resources (ODNR) Division of Geological Survey to present a clear and concise representation of mining production, sales, and employment for Ohio's mineral industry commodities. This report provides a brief discussion of each geologic commodity and a list of commodity statistics for 2025. Percent change comparisons of 2025 production and sales values for each commodity with those of the previous year are noted, with the 2024 data coming from the 2024 edition of this report (Wright, 2025).

The *Map of Active Mineral Industry Operations in Ohio* is included at the end of the report and acts as a standalone product. The map includes a table with information about each labeled point, including the company name and total combined tonnage of material(s) mined at each operation.

Detailed commodity information for all mineral industries, including sales, production, value, and company information for each of the operators who reported activity in 2025 is available on the ODNR Division of Geological Survey website at **ohiodnr.gov/industrialminerals**.

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2025 OHIO ECONOMIC GEOLOGY IN BRIEF

In 2025, the total value[1] of coal was $90,167,346 and the total value[1] of all industrial minerals was $1,904,990,305 (figs. 1 and 2; table 1); their combined value is equivalent to $1,995,157,651 or approximately $168 per capita. The total production of coal was 1,748,381 tons, and the total industrial mineral production was 107,831,331 tons (table 1). The combined coal and industrial minerals production in Ohio during 2025 was 109,579,712 tons or approximately 9.2 tons per capita (fig. 3A), which is down 1.8 percent from 2024 production. In 2025, Ohio produced 49,978,154 barrels of oil, which is up 36.4 percent from 2024 production; Ohio also produced 2,102,143,114 thousand cubic feet of natural gas, which is down 2.4 percent from 2024 production (fig. 3B).

Reported and estimated total direct employment in the extractive industries of Ohio during 2025 totaled over 10,000 people. Industrial mineral production increased for salt and clay, while production decreased for limestone and dolomite, sand and gravel, sandstone and conglomerate, shale, and coal. Peat production did not occur in 2024 or 2025. In 2025, the production-leading commodity of limestone and dolomite was down 2.7 percent from 2024, with the second-leading commodity of sand and gravel down 2.4 percent from 2024; the third-leading commodity of salt was up 26.9 percent from 2024; and the fourth-leading commodity of coal was down 7.3 percent from 2024.

[1]Includes reported and estimated values. Some operations reporting sales did not report a value for those sales. A statewide-average price per ton was calculated for each industrial-mineral commodity based on sales for which the value was reported. A statewide-average price per ton was calculated for coal based on method of production for which sales or value was reported. These calculated averages were used to estimate the value of the sales for which the actual values were not reported.

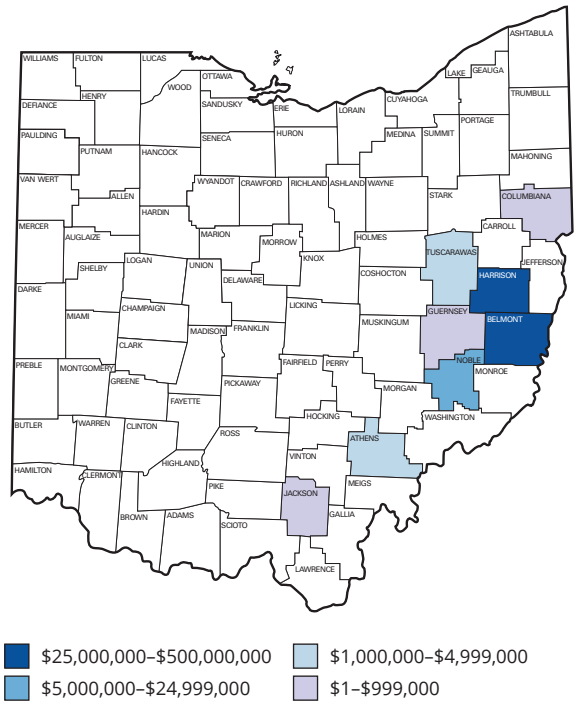


FIGURE 1. Total value of coal sold in Ohio in 2025, by county.

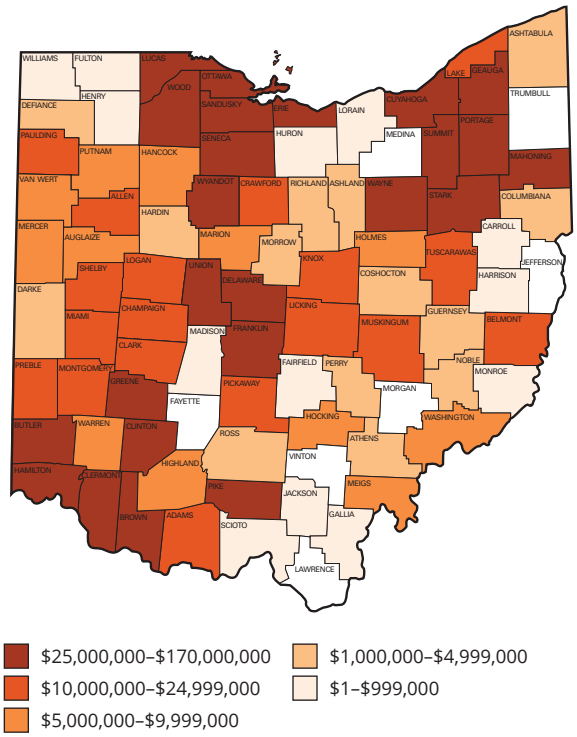


FIGURE 2. Total value of industrial minerals sold in Ohio in 2025, by county.

TABLE 1. ***Fuel and nonfuel mineral sales and production in Ohio in 2025***

Commodity	Production[a]	Sales[b]	Value[c]	Change in value from 2024 (percent)
Limestone and dolomite	71,062,608 tons	69,707,912 tons	$1,140,033,509	+8.6
Coal	1,748,381 tons	1,728,048 tons	$90,167,346	+7.1
Sand and gravel	29,344,406 tons	29,529,016 tons	$353,363,588	+7.2
Salt	5,303,087 tons	6,165,801 tons	$346,027,609	+42.0
Sandstone and conglomerate	1,083,491 tons	1,069,398 tons	$54,666,419	–2.1
Shale	389,595 tons	387,072 tons	$3,923,791	–30.2
Clay	648,144 tons	671,869 tons	$6,975,389	–6.7
Peat	–	–	–	–
Gas	2,102,143,114 thousand cubic feet	not available	not available	not available
Oil	49,978,154 barrels	not available	not available	not available

[a]The production figures for industrial minerals are estimates, as many operators do not know actual production. For those operators that do not report production, production is assumed equal to sales or estimated from ODNR Division of Mineral Resources Management records.

[b]Includes material for captive use.

[c]The FOB value (free on board; value of mined product excluding insurance or transportation costs) of industrial minerals sold was estimated for those mines that failed to report this information and for those producing material for captive use. These estimates were calculated using a statewide-average price per ton based on reported FOB values.

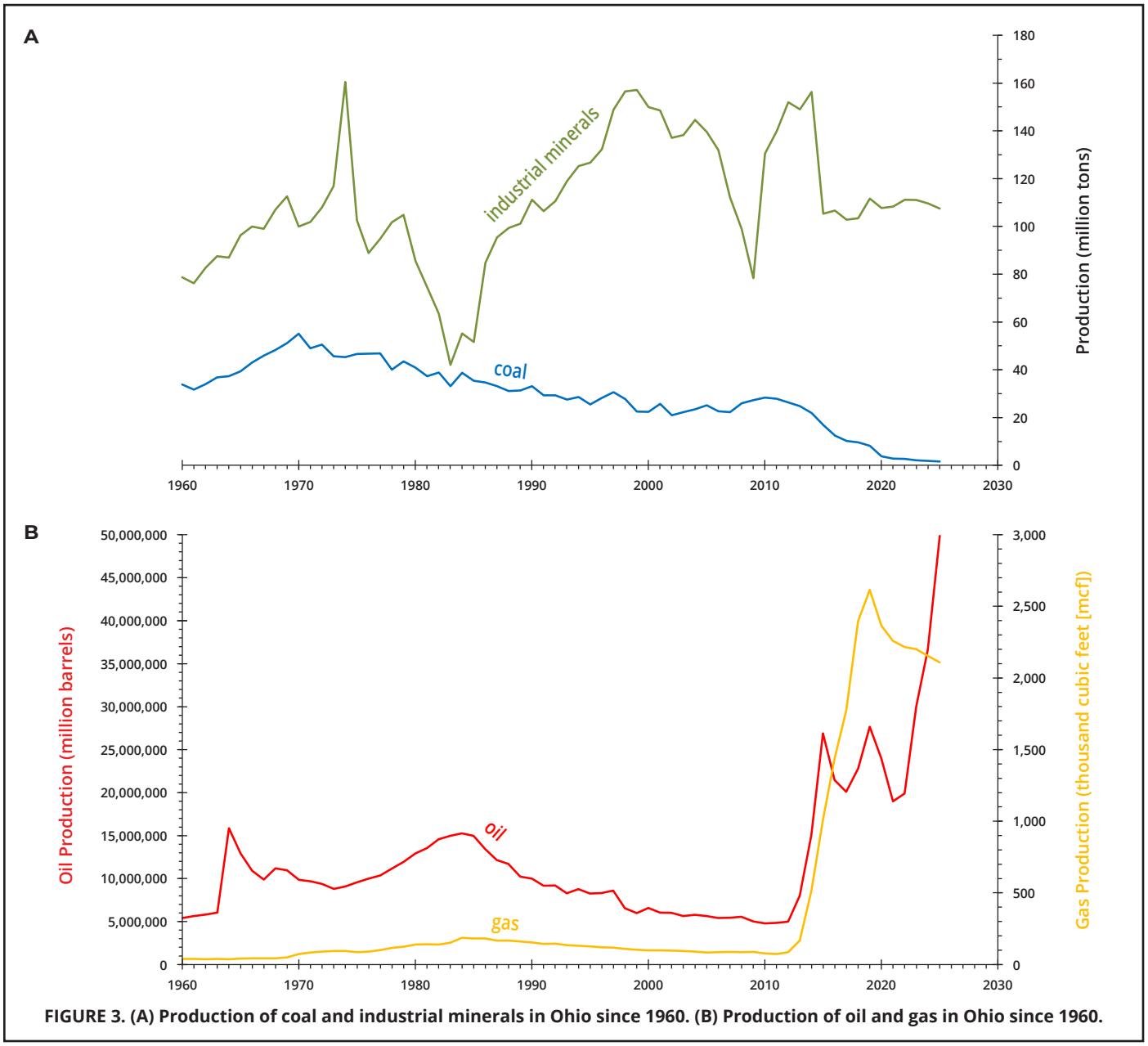


FIGURE 3. (A) Production of coal and industrial minerals in Ohio since 1960. (B) Production of oil and gas in Ohio since 1960.

COAL

To learn more about the formation and uses of Ohio's coal resources, visit ohiodnr.gov/coalgeology. Commodity summaries and directories of operators are available at ohiodnr.gov/industrialminerals.

Coal was first recognized in Ohio by pioneers during the 1740s and the first map of Ohio coal deposits was made in 1752 (Crowell, 1995). The first reported production of Ohio coal was in Jefferson County in 1800, and it amounted to 100 tons. Columbiana County was the next to report coal production, starting in 1803 (Crowell, 1995). Since that time, over 4 billion tons of coal have been mined from coal seams in the state (fig. 4; Crowell, 1995); this represents a value of more than $200 billion in 2025 dollars.

In 2025, ODNR issued one surface-mine expansion permit and no underground-mine expansion permits. There were no new surface-mine permits issued and no new underground-mines permitted. Several coal operations ceased or curtailed production in 2025 because of competing, less-expensive natural gas and decreased demand.

Production
(fig. 3A; tables 1–5)

- Tons produced = 1,748,381 (–7.3% from 2024)
- U.S. ranking:
  - 16th out of 20 producing states (**USDOE, 2025**)
- Top producing seams:
  - Upper Freeport (No. 7)
  - Meigs Creek (No. 9, Sewickley)
  - Pittsburgh (No. 8)

Sales
(figs. 1, 5, and 6; tables 2–7)

- Tons sold = 1,728,048 (–8.0% from 2024)
- Value[2] = $90,167,346
- Leading counties (percentage of statewide sales):
  - Harrison (38.4%)
  - Belmont (30.6%)
  - Noble (21.9%)
  - Tuscarawas (5.3%)

Employment
(table 8)

- Production employees reported = 264
- Nonproduction employees reported = 94
- Average employee wages:
  - Surface-mine production = $56,981
  - Underground-mine production = $98,614
- Total wages earned = $26,818,091

[2]Includes reported and estimated values. See footnote 1, p. 1.

SYSTEM	GROUP	LITHOSTRATIGRAPHIC UNITS
Permian	Dunkard	Washington (No. 12) coal
Pennsylvanian	Monongahela	Waynesburg (No. 11) coal Uniontown (No. 10) coal Meigs Creek (No. 9, Sewickley) coal Pomeroy (No. 8a, Redstone) coal Pittsburgh (No. 8) coal
	Conemaugh	Ames marine zone Harlem coal Anderson coal Wilgus coal Brush Creek marine zone Mahoning (No. 7a) coal
	Allegheny	Upper Freeport (No. 7) coal Lower Freeport (No. 6a) coal Middle Kittanning (No. 6) coal Strasburg (No. 5a) coal Lower Kittanning (No. 5) coal Vanport marine zone Clarion (No. 4a) coal Winters coal Newland (No. 4, Brookville) coal
	Pottsville	Tionesta (No. 3b) coal Upper Mercer (No. 3a) coal Lower Mercer (No. 3) coal Quakertown (No. 2) coal Sharon (No. 1) coal

FIGURE 4. Stratigraphic column of coals mined in Ohio during 2025 (black), other significant coal beds (red), and associated key beds (blue) used for stratigraphic correlation. Modified from Brant and DeLong (1960), Collins (1979), and Larsen (1991).

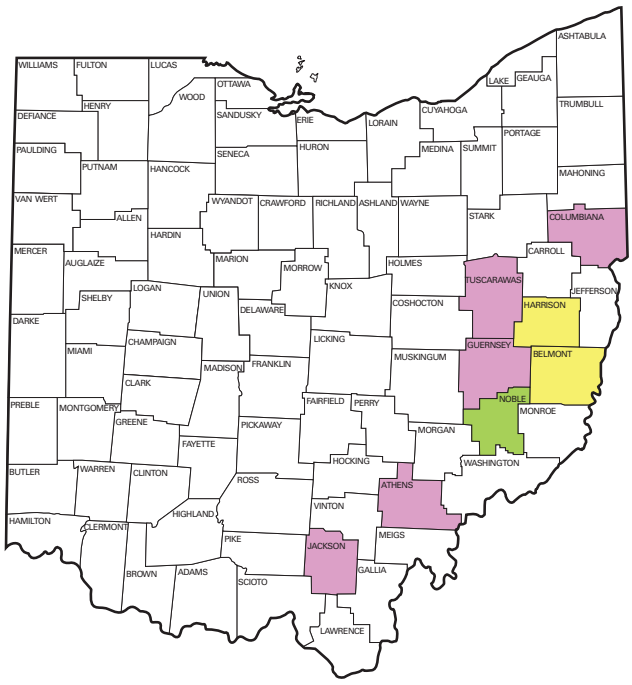


FIGURE 5. Coal sales in Ohio in 2025, by county and quantity.

500,000–999,999 tons
250,000–499,999 tons
<100,000 tons

TABLE 2. ***Ohio coal production and sales by county in 2025, in descending order of production***

County	Production (short tons)	Sales (short tons)
Harrison	689,343	663,858
Belmont	523,067	529,248
Noble	378,260	378,260
Tuscarawas	91,290	91,290
Athens	65,836	64,807
Jackson	338	338
Columbiana	245	245
Guernsey	2	2
TOTAL	**1,748,381**	**1,728,048**

TABLE 3. ***Ohio coal production in 2025, by production size group and change from 2024***

Production size group	2025		Change from 2024 (short tons)
	Number of mines reporting	Production (short tons)	
1,000,000 tons and over	0	0	0
500,000 to 999,999 tons	1	554,455	–5,298
250,000 to 499,999 tons	0	0	0
100,000 to 249,999 tons	4	701,036	–180,256
50,000 to 99,999 tons	4	310,298	82,411
25,000 to 49,999 tons	3	121,200	–19,824
Less than 25,000 tons	11	61,392	–15,351
TOTAL	**23**	**1,748,381**	**–138,318**

TABLE 4. ***Ohio coal production in 2025, by county and mining method***

County	All methods (short tons)	Total number of mines	Underground				Surface				
			Number of mines reporting	Production (short tons)			Number of mines reporting	Production (short tons)			
				Total	Longwall	Continuous		Total	Strip	Auger	Highwall
Athens	65,836	1					1	65,836	29,080	36,756	
Belmont	523,067	4					4	523,067	409,251	23,970	89,846
Columbiana	245	1					1	245	245		
Guernsey	2	1					1	2	2		
Harrison	689,343	2	2	689,343		689,343					
Jackson	338	1					1	338	338		
Noble	378,260	5					5	378,260	378,260		
Tuscarawas	91,290	8					8	91,290	84,430	6,860	
TOTAL[a]	**1,748,381**	**23**	**2**	**689,343**	**0**	**689,343**	**21**	**1,059,038**	**901,606**	**67,586**	**89,846**

[a]Any tally inconsistencies are because of rounding of production tonnages.

TABLE 5. ***Ohio coal production in 2025, by county and seam***

County[a]	Production (short tons)						
	Total	Newland (No. 4, Brookville)	Lower Kittanning (No. 5)	Middle Kittanning (No. 6)	Upper Freeport (No. 7)	Pittsburgh (No. 8)	Meigs Creek (No. 9, Sewickley)
Athens	65,836			65,836			
Belmont	523,067					395,152	127,915
Columbiana	245		245				
Guernsey	2						2
Harrison	689,343				689,343		
Jackson	338		338				
Noble	378,260						378,260
Tuscarawas	91,290	27,457	23,416	40,417			
TOTAL[b]	**1,748,381**	**27,457**	**23,999**	**106,253**	**689,343**	**395,152**	**506,177**

[a]Production from mines operating in more than one county was evenly split between the counties involved, unless a county-specific breakdown was provided by the operator.

[b]Any tally inconsistencies are because of rounding of production tonnages.

TABLE 6. ***Disposition of Ohio coal in 2025, by county***

County[a]	Number of mines	Disposition[a] (short tons)					Stored
		Total[b]	Rail	Water	Truck	Conveyor	
Athens	1	64,807			64,807		
Belmont	4	529,248			529,248		
Columbiana	1	245			245		
Guernsey	1	2			2		
Harrison	2	663,858	109,403		554,455		1,533
Jackson	1	338			338		
Noble	5	378,260			378,260		
Tuscarawas	8	91,290			91,290		
TOTAL[c]	**23**	**1,728,048**	**109,403**	**0**	**1,618,645**	**0**	**1,533**

[a]Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and type(s) of disposition reported unless county-specific information was provided by the operator.

[b]Does not reflect tonnage stored. Reflects tonnage sold and shipped from mine.

[c]Any tally inconsistencies are because of rounding.

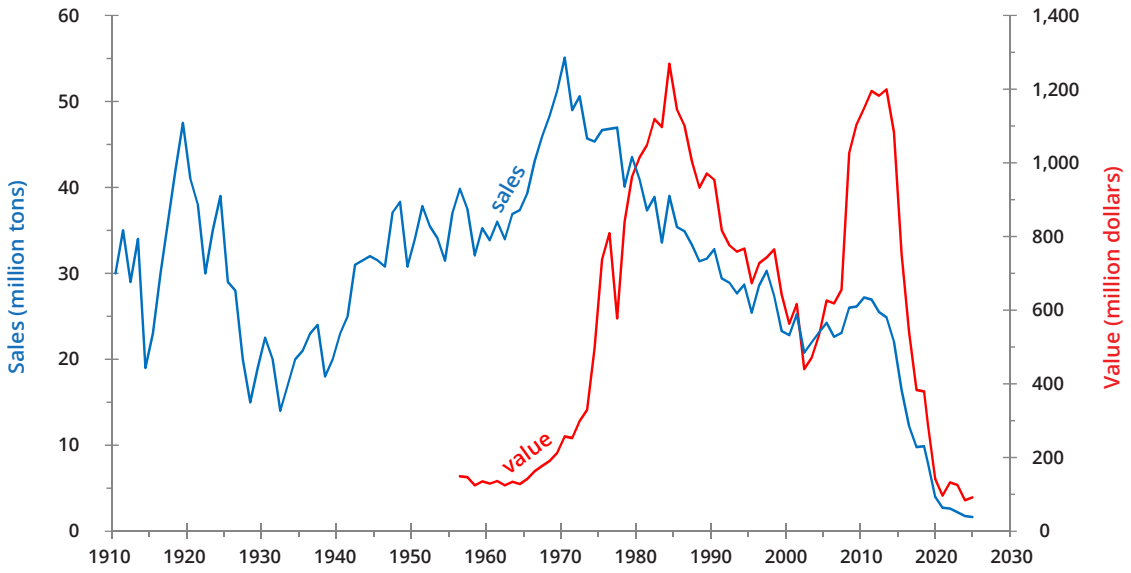


FIGURE 6. Sales and value of coal in Ohio since 1910.

TABLE 7. ***Dollar value of coal at mine in 2025, by county and mining method***

County[a]	Total				Underground				Surface			
	No. of mines	Tonnage sold (short tons)	Value at mine[b] (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine[b] (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine[b] (dollars)	Per ton average (dollars)
Athens	1	64,807	$2,577,784	$39.78					1	64,807	$2,577,784	$39.78
Belmont	4	529,248	$25,021,130	$47.28					4	529,248	$25,021,130	$47.28
Columbiana	1	245	$26,628	$108.69					1	245	$26,628	$108.69
Guernsey	1	2	$41	$20.50					1	2	$41	$20.50
Harrison	2	663,858	$45,573,852	$68.65	2	663,858	$45,573,852	$68.65				
Jackson	1	338	$12,435	$36.79					1	338	$12,435	$36.79
Noble	5	378,260	$15,130,392	$40.00					5	378,260	$15,130,392	$40.00
Tuscarawas	8	91,290	$1,825,084	$19.99					8	91,290	$1,825,084	$19.99
TOTAL	**23**	**1,728,048**	**$90,167,346**	**$52.18**	**2**	**663,858**	**$45,573,852**	**$68.65**	**21**	**1,064,190**	**$44,593,494**	**$41.90**

[a]Sales reported from mines operating in more than one county were evenly split between the counties involved unless county-specific information was provided by the operator.

[b]The FOB value (free on board; value of mined product excluding insurance or transportation costs) of coal sold was estimated for those mines that failed to report this information. These estimates were calculated using a statewide-average price per ton by mining method, based on reported FOB values deemed to be reliable.

TABLE 8. ***Wage and salary payments to Ohio coal mine employees in 2025, by county and occupational group***

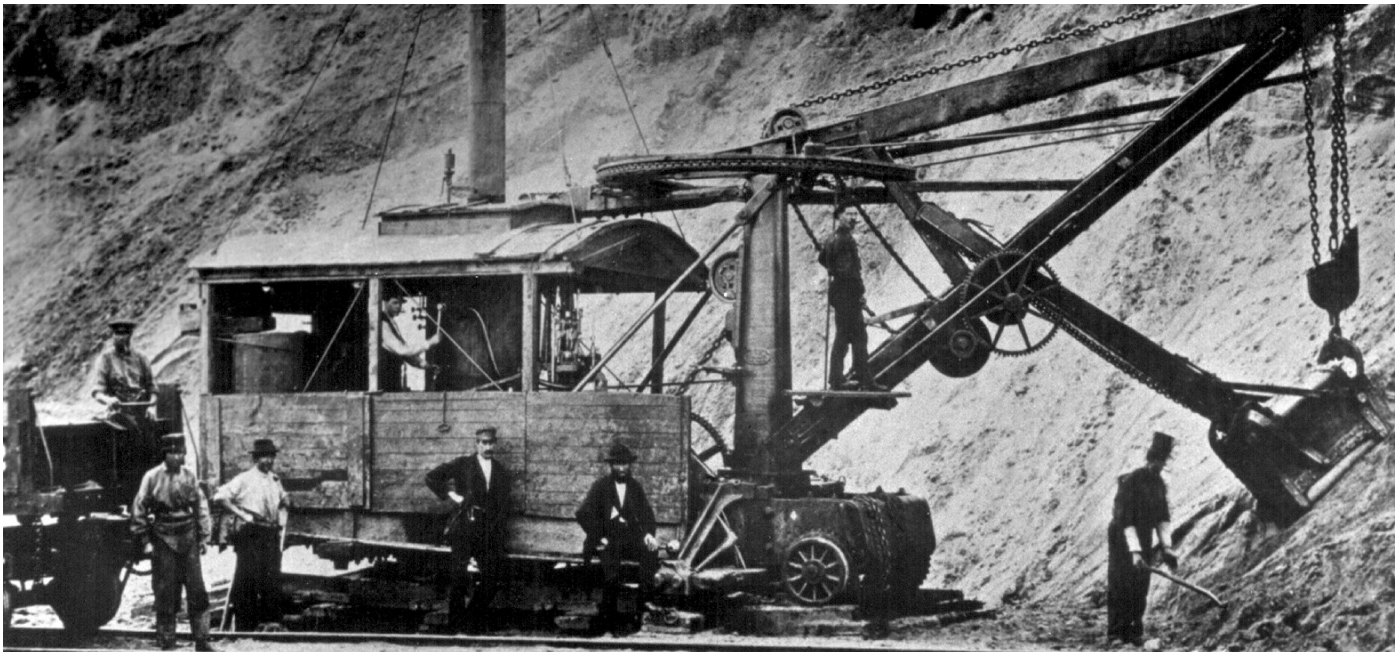
County[a]	Wage and salary payments (nearest whole dollar)[b]			
	All occupations	Underground production employees	Surface production employees	Other[d]
Athens	$1,061,682		$554,878	$506,804
Belmont	$6,215,306		$4,606,482	$1,608,824
Guernsey	$1,212,652		$382,348	$830,304
Harrison	$11,505,748	$9,664,206		$1,841,542
Noble	$3,474,881		$3,474,881	
Tuscarawas	$661,409		$440,316	$221,093
TOTAL[c]	**$24,131,678**	**$9,664,206**	**$9,458,905**	**$5,008,567**

[a]For those operations reporting activity in more than one county, wage and salary payments were evenly split between the counties involved unless county-specific information was provided by the operator.

[b]For those operations reporting only a total wage and salary payment for all workers, an equal pay rate was assumed for all employees. In cases where quarterly employment was reported but wage and salary payments were not, wage and salary payments for that quarter were estimated from reported payments in the other quarters to arrive at the annual figure.

[c]Any tally inconsistencies are because of rounding.

[d]Data excludes wages for idle mines and for reclaiming mines.





INDUSTRIAL MINERALS

To learn more about the bedrock and glacial geology of Ohio, visit ohiodnr.gov/bedrockgeology and ohiodnr.gov/glacialgeology. Commodity summaries and directories of operators are available at ohiodnr.gov/industrialminerals.

Industrial minerals are nonmetallic, nonfuel rocks and/or minerals that have economic value and are essential to modern society. Industrial minerals have been mined or quarried in Ohio since the establishment of early settlements and include limestone, dolomite, sand, gravel, sandstone, conglomerate, clay, shale, salt, gypsum, and peat. Hundreds of construction projects and industrial and household products rely on the availability of industrial minerals.

The production of multiple commodities is important to the economic success of mining operations in many areas of Ohio. Production sites of sand, gravel, and clay are often located in glaciated portions of northern and western Ohio, where deposits of sand and gravel can occur within clay-rich glacial tills. The Pennsylvanian cyclic sedimentation in eastern Ohio includes coals, clays, shales, sandstones, and limestones near one another, allowing for economic recovery of multiple commodities.

Industrial minerals were reported as produced or sold at 315 operations in 81 Ohio counties during 2025. The combined value of all industrial minerals sold in 2025 was $1,904,990,305 (table 9). The statewide combined employment for all nonfuel industrial mineral extraction was 3,971 employees (table 10).

In 2025, peat sales were not reported; when produced, it is typically by a company that also produces sand and gravel and/or clay. Peat production and sales have been sporadic in Ohio since 2000. In recent years, peat production and sales have been very marginal to small, generally having a negligible effect on the total value of all industrial minerals mined in Ohio (table 9).

TABLE 9. ***Value of Ohio industrial minerals in 2025***

Commodity	Sales (tons)	Change from 2024 (tons/percent)	Value[a]	Percent of total value
Limestone and dolomite	69,707,912	–608,152/–0.9	$1,140,033,509	59.8
Sand and gravel	29,529,016	+71,854/+0.2	$353,363,588	18.5
Salt	6,165,801	+1,926,028/+45.4	$346,027,609	18.2
Sandstone and conglomerate	1,069,398	–395,677/–27.0	$54,666,419	2.9
Shale	387,072	–162,120/–29.5	$3,923,791	0.2
Clay	671,869	+143,728/+27.2	$6,975,389	0.4
Peat	–	–	–	–
TOTAL	**107,531,068**	**+975,661/+0.9**	**$1,904,990,305**	**100.0**

[a]The FOB value (free on board; value of mined product excluding insurance or transportation costs) of industrial minerals sold was estimated for those mines that failed to report this information and for those producing material for captive use. These estimates were calculated using a statewide-average price per ton based on reported FOB values.

TABLE 10. ***Employment at Ohio industrial mineral operations in 2025, by county***

County	Total employees[b]	Production employees	Nonproduction employees
Adams	25	13	12
Allen	38	30	8
Ashland	19	14	5
Ashtabula	9	6	3
Athens	17	8	9
Auglaize	11	8	3
Belmont	159	44	115
Brown	33	16	17
Butler	128	47	81
Carroll	1	1	0
Champaign	18	15	3
Clark	16	10	6
Clermont	58	52	6
Clinton[a]	0	0	0
Columbiana	8	6	2
Coshocton	20	15	5
Crawford	13	13	0
Cuyahoga	257	225	32
Darke[a]	0	0	0
Defiance	10	7	3
Delaware	22	22	0
Erie	148	81	67
Fairfield[a]	0	0	0
Franklin	168	122	46
Fulton	3	2	1
Gallia[a]	0	0	0
Geauga	81	67	14
Greene	160	116	44
Guernsey	26	10	16
Hamilton	133	72	61
Hancock	2	2	0
Hardin	6	0	6
Harrison	2	2	0
Henry[a]	0	0	0
Highland	24	19	5
Hocking	41	12	29
Holmes	47	25	22
Huron[a]	0	0	0
Jackson	6	3	3
Knox	110	58	52
Lake	92	57	35
Licking	34	23	11
Logan	72	51	21
Lorain	4	3	1
Lucas	105	60	45
Madison	8	4	4
Mahoning	79	52	27
Marion	14	12	2
Meigs	20	16	4
Mercer	31	14	17
Miami	37	34	3
Monroe	5	4	1
Montgomery	47	37	10
Morrow	6	6	0
Muskingum	61	52	9
Noble	19	16	3
Ottawa	131	89	42
Paulding	54	35	19
Perry	3	2	1
Pickaway	27	16	11
Pike	7	4	3
Portage	123	87	36
Preble	31	21	10
Putnam	2	2	0
Richland	11	10	1
Ross	9	4	5
Sandusky	218	191	27
Scioto	6	4	2
Seneca	74	54	20
Shelby	17	13	4
Stark	92	77	15
Summit	101	79	22
Tuscarawas	186	64	122
Union	62	43	19
Van Wert	39	25	14
Warren	17	10	7
Washington	38	18	20
Wayne	72	39	33
Williams[a]	0	0	0
Wood	59	39	20
Wyandot	139	98	41
TOTAL 81 counties	**3,971**	**2,608**	**1,363**

[a]Counties where commodities were extracted but no employment information was provided are represented with "0" in their employment fields.

[b]Any tally inconsistencies are because of computer rounding produced by partial-year employment.



LIMESTONE AND DOLOMITE

Limestone and dolomite are Ohio's most versatile industrial minerals. Both are used as aggregate in the construction industry, as an essential ingredient in the cement industry, to produce lime, as a flux in the steel and glass industries, as filler in a multitude of products, as an agricultural supplement, in water purification, and as a building stone. Ohio has long been a national leader in the production of lime and construction aggregates.

Silurian and Devonian carbonates located in the western half of Ohio are the primary geologic units used to produce crushed stone. Mississippian and Pennsylvanian limestones are important sources of aggregate in local markets of eastern Ohio (Stout, 1941; Lamborn, 1951).

Production
(tables 1 and 12)

- Tons produced = 71,062,608 (–2.7% from 2024)
- U.S. ranking:
  - 5th out of 50 producing states for crushed stone (**USGS, 2025a**)
  - In the top 4 of the 30 producing states for lime (**USGS, 2025b**)
- Top producing geologic units (fig. 7):
  - Columbus/Delaware limestones (Devonian)
  - Lockport Dolomite (Silurian)
  - Greenfield/Peebles/Tymochtee dolomites (Silurian)
  - Cedarville Dolomite (Silurian)

Sales
(figs. 8 and 9; tables 1, 9, 11, and 12)

- Tons sold = 69,707,912 (–0.9% from 2024)
- Value[3] = $1,140,033,509
- Leading counties (percentage of statewide sales):
  - Wyandot (11.7%)
  - Franklin (11.4%)
  - Ottawa (7.6%)
  - Delaware (6.8%)
  - Erie (6.0%)

Employment
(table 10)

- Production employees reported = 1,331
- Nonproduction employees reported = 644
- Average employee annual wage = $67,394
- Total wages earned = $116,186,774
- Average days worked per operation = 191

[3]Includes reported and estimated values. See footnote 1, p. 1.

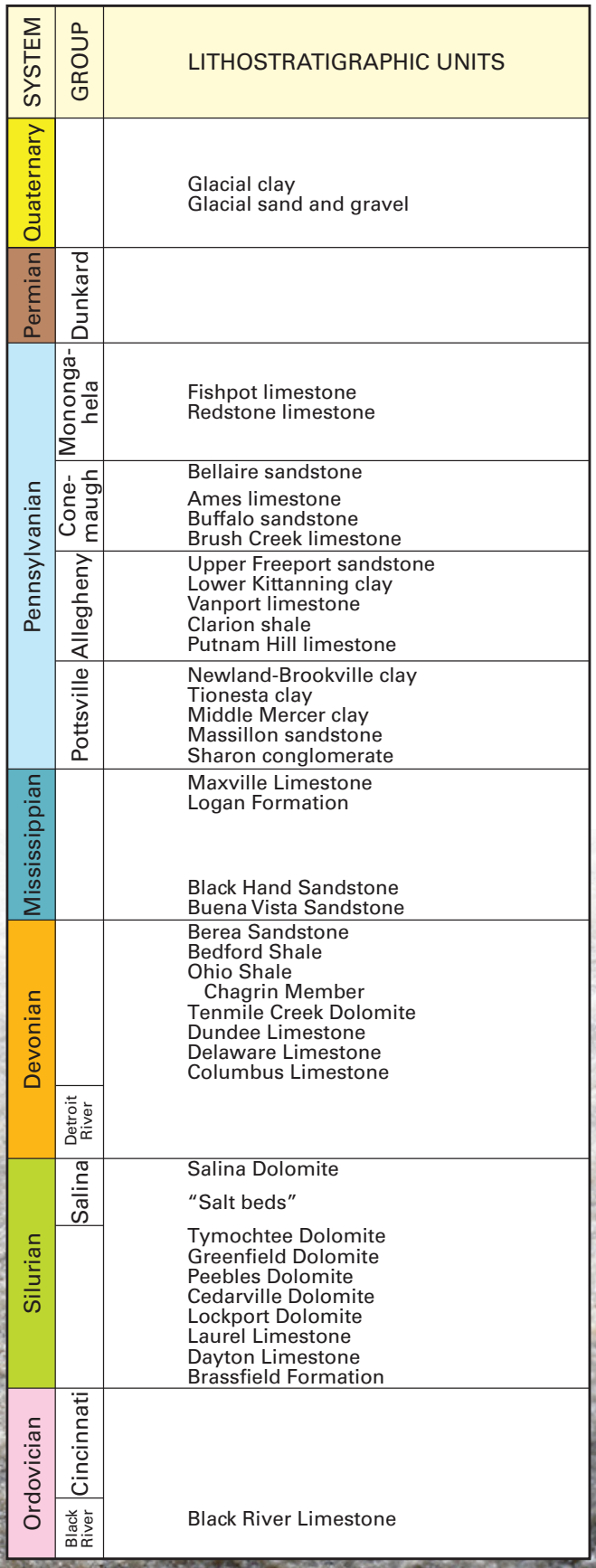


FIGURE 7. Generalized stratigraphic column of nonfuel industrial minerals typically mined in Ohio. Modified from Brant and DeLong (1960), ODNR Division of Geological Survey (1990), and Slucher and others (2006).

TABLE 11. ***Ohio limestone and dolomite sales in 2025, by county and use***

County	Tons sold														
	Total all types	Crushed and broken stone										Dimension stone	Stone for portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning
		Total	Riprap	Flux stone	Stone for portland cement concrete	Stone for asphaltic concrete	Road construction/ resurfacing	Commercial building	Railroad ballast	Extenders/ fillers	Unspecified/ other				
Adams	1,043,020	1,043,020						105,250			937,770				
Allen	812,206	809,007	2,193			125,349	195,677			5,056	480,732			3,199	
Auglaize	563,256	554,691	4,634		84,780		8,000	280,277			177,000			8,565	
Belmont	1,150,665	1,150,665	61,824				498,827				590,014				
Brown	1,851,489	1,851,489									1,851,489				
Butler	183,052	183,052									183,052				
Clark	79,557	79,557					19,889	59,668							
Clermont	2,270,717	2,270,717			169,629	331,183		1,769,905							
Clinton	2,579,188	2,568,350	44,399		257,900	644,938	773,700	825,280	5,745		16,388			10,838	
Coshocton	8,650	8,650									8,650				
Crawford	1,078,000	1,078,000									1,078,000				
Darke	297,542	297,542	1,274		16,788	27,919	115,369	136,192							
Delaware	4,781,410	4,781,410									4,781,410				
Erie	4,218,385	4,217,623	6,256				332,000				3,879,367	325		437	
Franklin	7,953,466	7,892,487	26,136		927,356	461,921	3,862	2,854,817			3,618,395			60,979	
Greene	1,861,417	1,861,417			755,974		96,546	423,273			585,624				
Guernsey	121,126	121,126					121,126								
Hamilton	4,326	4,326									4,326				
Hancock	515,500	515,500									515,500				
Hardin	118,711	118,711									118,711				
Highland	392,408	387,051	4,575			43,827	28,500	310,149						5,357	
Knox	20,528	19,747				1,120		18,627						781	
Licking	8,067	8,067						8,067							
Logan	823,145	823,145	6,830		250,000	100,000	210,000	110,375		32,298	113,642				
Lucas	2,002,293	2,002,293									2,002,293				
Mahoning	1,681,782	1,681,782									1,681,782				
Marion	515,000	515,000									515,000				
Mercer	641,534	641,534									641,534				
Miami	1,342,586	1,255,094	5,011	6,660	146,981	9,000	342,882	325,837	3,740	164,246	250,737			87,492	
Montgomery	705,185	705,185			113,591			121,049			470,545				
Muskingum	860,302	860,302	1,180								859,122				
Noble	277,648	277,648	10,674				256,566				10,408				
Ottawa	5,120,389	4,965,033	20,985		871,655	42,814	2,591,445				1,438,134				155,356
Paulding	1,443,328	1,011,952									1,011,952		431,376		
Perry	212,500	212,500	12,500				80,000	80,000			40,000				
Pickaway	258,396	258,396	6,000		60,000	100,000	10,000	50,000	5,000		27,396				
Pike	1,512,495	1,506,495	80,000		300,000	500,000	300,000	300,000	10,000		16,495			6,000	
Preble	220,000	220,000									220,000				
Putnam	370,000	370,000									370,000				
Ross	184,459	184,459					60,000	80,000			44,459				

TABLE 11. ***Ohio limestone and dolomite sales in 2025, by county and use (cont.)***

County	Tons sold														
	Total all types	Crushed and broken stone										Dimension stone	Stone for portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning
		Total	Riprap	Flux stone	Stone for portland cement concrete	Stone for asphaltic concrete	Road construction/ resurfacing	Commercial building	Railroad ballast	Extenders/ fillers	Unspecified/ other				
Sandusky	2,764,214	991,210	11,229		163,661	158,081	2,387	638,707		13,131	4,014			16,662	1,756,342
Seneca	2,332,859	1,626,892	5,488								1,621,404			55,948	650,019
Shelby	611,000	611,000									611,000				
Stark	18,283	18,283	125				18,158								
Tuscarawas	226,169	226,169	22,867				189,210				14,092				
Union	2,421,858	2,421,858									2,421,858				
Van Wert	647,874	647,874									647,874				
Wayne	1,925	1,618						1,618						307	
Wood	2,398,543	2,389,154	18,917		104,820	465,891	642,060	1,001,560		2,020	153,886			9,389	
Wyandot	8,201,459	8,200,152			197,921	204,162	17,322	394,658			7,386,089			1,307	
TOTAL	**69,707,912**	**66,447,233**	**353,097**	**6,660**	**4,421,056**	**3,216,205**	**6,913,526**	**9,895,309**	**24,485**	**216,751**	**41,400,144**	**325**	**431,376**	**267,261**	**2,561,717**

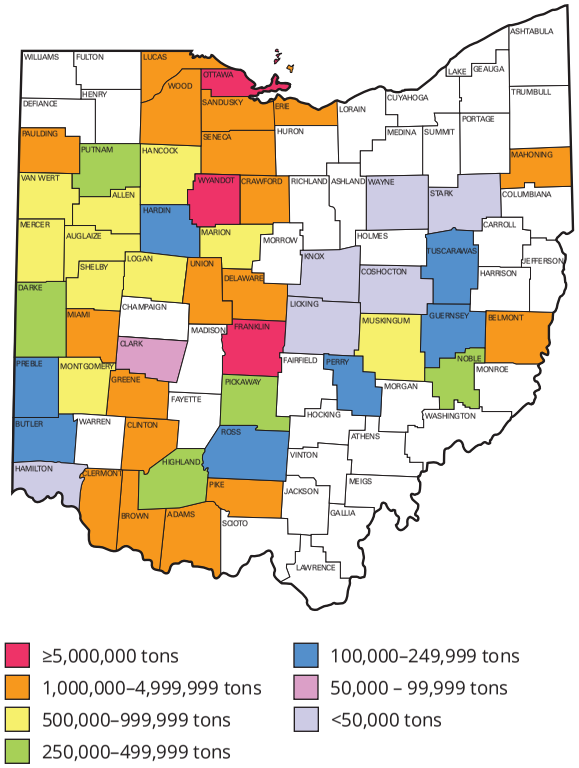


FIGURE 8. Sales of limestone and dolomite in Ohio in 2025, by county and quantity.

TABLE 12. ***Production of lime from Ohio in 2025, by county and use***

County	Total tons[a]	Building (tons)	Chemical and industrial (tons)	Refractory (tons)
Ottawa	70,616	48,933	21,683	
Sandusky	763,627		763,627	
Seneca	299,822		299,822	
TOTAL	**1,134,065**	**48,933**	**1,085,132**	**0**

[a]Burning produced a 44.3% weight loss.

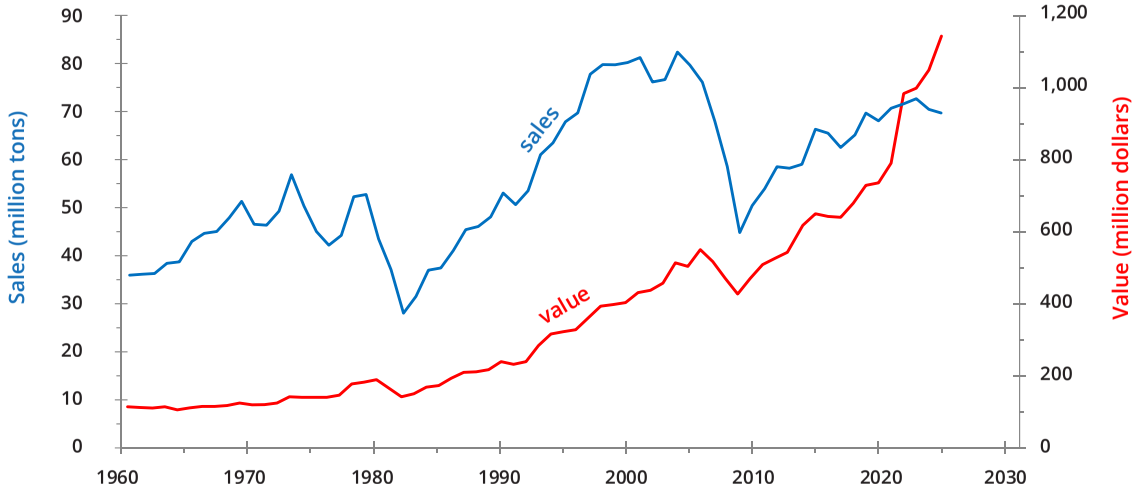


FIGURE 9. Sales and value of limestone and dolomite in Ohio since 1960.

SAND AND GRAVEL

Sand and gravel are common raw materials that are major components of asphalt, concrete, mortar, landscaping, roofing shingles, soil additives, and many other products. Sand-and-gravel production increased rapidly in Ohio, beginning in the 1950s with the development of improved mining and processing machinery and increased demand from road building (ODNR Division of Geological Survey, 1959). Many depleted sand-and-gravel operations have been redeveloped as parks, residential spaces, or commercial facilities because of their proximity to urban areas.

Sand-and-gravel deposits in Ohio primarily are associated with Wisconsinan glacial outwash and kame terraces in the valleys and tributaries of the Great Miami, Scioto, and Muskingum rivers located in the southwestern, central, and eastern portions of the state, respectively. Important sand-and-gravel deposits also are found in glacial kames in northeastern Ohio, beach ridges associated with ancestral Lake Erie, and alluvium in modern floodplains of the Ohio River and its tributaries.

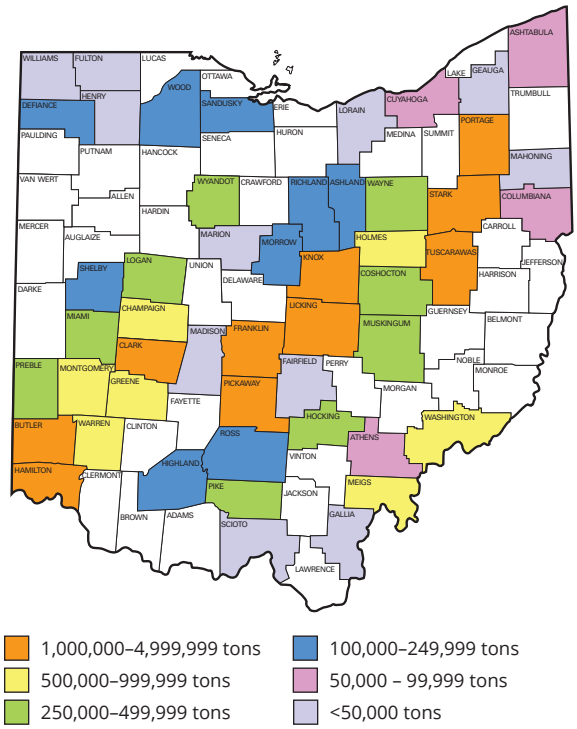


FIGURE 10. Sales of sand and gravel in Ohio in 2025, by county and quantity.

Production
(table 1)

- Tons produced = 29,344,406 (–2.4% from 2024)
- U.S. ranking:
  - Estimated 10th out of 50 sand and gravel producing states (**USGS, 2025c**; USGS, written commun., 2026)

Sales
(figs. 10 and 11; tables 1, 9, and 13)

- Tons sold = 29,529,016 (+0.2% from 2024)
- Value[4] = $353,363,588
- Leading counties (percentage of statewide sales):
  - Stark (11.6%)
  - Portage (10.2%)
  - Hamilton (9.3%)
  - Butler (7.5%)
  - Licking (5.1%)

Employment
(table 10)

- Production employees reported = 904
- Nonproduction employees reported = 554
- Average employee annual wage = $58,043
- Total wages earned = $76,267,985
- Average days worked per operation = 166

[4]Includes reported and estimated values. See footnote 1, p. 1.

TABLE 13. ***Ohio sand and gravel sales in 2025, by county and use***

County	Tons sold															
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/ resurfacing		Filtration		Foundry sand	Industrial sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel			Sand	Gravel
Ashland	174,765	61,471	113,294	18,441	33,700					36,883	67,399					6,147	12,195
Ashtabula	77,511	46,262	31,249	46,262	31,249												
Athens	53,192	32,436	20,756					30,436	18,756	2,000	2,000						
Butler	2,212,968	1,138,112	1,074,856	306,963	370,309	358,409	221,942				117,017					472,740	365,588
Champaign	806,218	357,558	448,660	8,078	8,780	13,227	110,000	99,000	8,407	1,990	9,800					235,263	311,673
Clark	1,047,240	420,401	626,839	1,356	110,442	31,739	83,340	45,430	96,089	17,876	12,968					324,000	324,000
Columbiana	58,740	29,370	29,370													29,370	29,370
Coshocton	302,303	165,903	136,400	5,850	6,798			26,000	26,000	15,476	15,164					118,577	88,438
Cuyahoga	96,544	96,544														96,544	
Defiance	225,536	186,830	38,706	10,951	20,083	175,879											18,623
Fairfield	6,198	1,299	4,899													1,299	4,899
Franklin	1,087,699	644,199	443,500	88,866	243,466	525,128	189,656	30,080	173		10,080					125	125
Fulton	39,214	35,444	3,770													35,444	3,770
Gallia	1,648	824	824													824	824
Geauga	1,368	850	518													850	518
Greene	816,000	508,580	307,420	12,750	8,250	23,935	25,475	55,990	17,650	58,220	9,200					357,685	246,845
Hamilton	2,732,724	1,625,279	1,107,445	569,027	716,543	458,134	144,318				42,922					598,118	203,662
Henry	45,441	22,721	22,720	2,500	2,500					5,000	5,000					15,221	15,220
Highland	131,038	71,026	60,012		14,876	64,362			22,717			6,664	4,015				18,404
Hocking	476,702	340,021	136,681			35,077	5,336	5,979	32,072	163	381					298,802	98,892
Holmes	813,012	417,089	395,923	34,904	141,932	146,891	60,239	152,553	77,642	45,971	70,445	20,382	45,665		10,000	6,388	
Knox	1,339,412	538,957	800,455	6,224	317,959	357,908	89,844	58,431	59,190		139,191		57,707			116,394	136,564
Licking	1,518,118	872,519	645,599	12,367	295,821	319,805		28,167	9,193		14,362					512,180	326,223
Logan	280,944	120,996	159,948	2,761	1,183	30,798	13,199									87,437	145,566
Lorain	1,638	819	819													819	819
Madison	22,407	1,944	20,463					1,944			20,463						
Mahoning	47,657	16,399	31,258	1,069	4,500						3,379	4,240	12,200		5,224	5,866	11,179
Marion	7,009	4,398	2,611	3,825									2,611			573	
Meigs	760,744	479,807	280,937			338,726	120,630									141,081	160,307
Miami	441,024	199,766	241,258	43,052	92,674											156,714	148,584
Montgomery	986,511	447,315	539,196	159,735	302,456	42,300	47,100			11,300	10,800		10,200		2,900	231,080	168,640
Morrow	193,000	55,000	138,000													55,000	138,000
Muskingum	358,448	302,389	56,059	1,127				119,062	22,108	19,428	935	15,573				147,199	33,016
Pickaway	1,416,895	810,221	606,674	870	103	90,000		90,000	100,000		50,000					629,351	456,571
Pike	424,278	278,880	145,398													278,880	145,398
Portage	3,005,304	1,802,504	1,202,800	165,121	268,991	390,211	13,101	97,483	91,067	200,113	50,397	3,078	22,428			946,498	756,816
Preble	445,132	263,685	181,447	53,804	53,804											209,881	127,643
Richland	146,714	119,719	26,995	2,200	8,000						6,386					117,519	12,609

TABLE 13. ***Ohio sand and gravel sales in 2025, by county and use (cont.)***

County	Tons sold															
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/ resurfacing		Filtration		Foundry sand	Industrial sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel			Sand	Gravel
Ross	120,351	80,590	39,761	1,705	1,705			17,377	13,500	3,682	4,827					57,826	19,729
Sandusky	116,146	161	115,985					161	115,985								
Scioto	49,968	38,547	11,421	16,292		22,255	11,421										
Shelby	174,000	87,000	87,000													87,000	87,000
Stark	3,418,669	1,734,657	1,684,012	75,593	254,507	407,645	52,527	99,367	113,369	222,019	434,406					930,033	829,203
Tuscarawas	1,043,142	732,356	310,786	232,947	89,392	71,386	23,206	105,291	37,125	232,947	89,393					89,785	71,670
Warren	553,852	235,570	318,282	3,170	7,963			3,095			3,095					229,305	307,224
Washington	523,045	394,780	128,265	44,518	7,201	302,298	14,402		43,860		14,837					47,964	47,965
Wayne	343,316	198,596	144,720	11,356	114,838	162,316	7,357	10,682	10,324	12,017	9,386	2,225	2,815				
Williams	295	148	147													148	147
Wood	199,859	15,651	184,208					15,651	184,208								
Wyandot	385,077	277,717	107,360	47,536	39,316	50,185						9,229	43,044			170,767	25,000
TOTAL[a]	**29,529,016**	**16,313,310**	**13,215,706**	**1,991,220**	**3,569,341**	**4,418,614**	**1,233,093**	**1,092,179**	**1,099,435**	**885,085**	**1,214,233**	**61,391**	**200,685**	**0**	**18,124**	**7,846,697**	**5,898,919**

[a] Any tally inconsistencies are because of rounding.

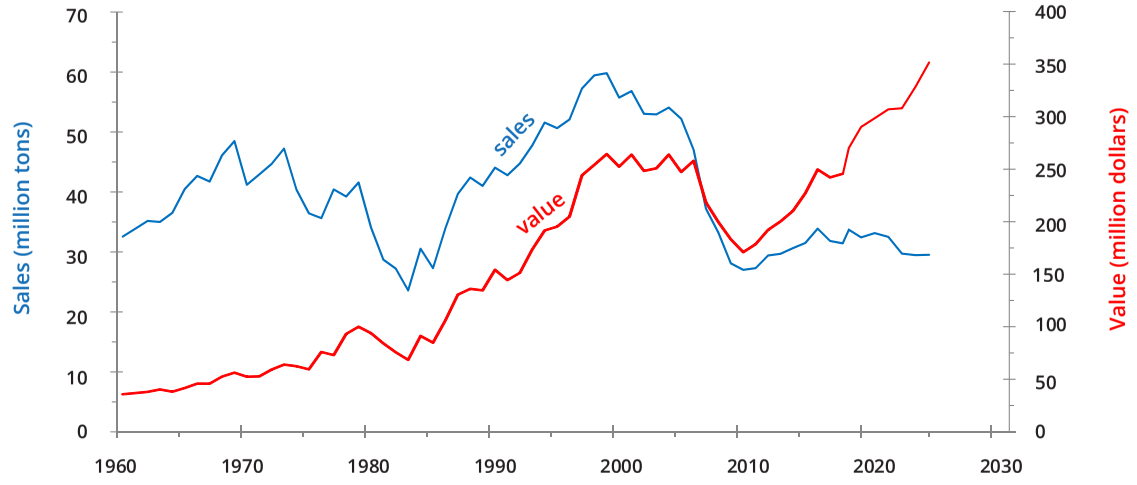


FIGURE 11. Sales and value of sand and gravel in Ohio since 1960.

SANDSTONE AND CONGLOMERATE

Extensive, high-quality sandstone and conglomerate deposits are located across central and eastern Ohio, from near Lake Erie to the Ohio River. During the mid-1800s, these geologic resources were developed into large building stone and glass production industries, which supported the steel industry and other associated industries. Many prominent buildings in the state use local building stones, including the Ohio Statehouse, Cleveland's Old Stone Church, The Ohio State University's Orton Hall, Cincinnati City Hall, and numerous other churches, monuments, and historical structures.

Ohio led the nation in sandstone production for many decades; this natural resource continues to support the state's industries today. Historically, the Devonian Berea Sandstone and the Pennsylvanian Massillon Sandstone of northern Ohio, as well as the Mississippian Buena Vista Sandstone of southern Ohio, have been the primary geologic units quarried for building stone (Bownocker, 1915; fig. 7).

Production

(table 1)

- Tons produced = 1,083,491 (–20.8% from 2024)
- U.S. ranking:
  - 5th out of 50 producing states for crushed stone (**USGS, 2025a**)
  - The 2025 U.S. state rankings for the 34 dimension-stone producing states were unavailable (**USGS, 2025d**).
- Top producing geologic units (fig. 7):
  - Sharon Conglomerate (Pennsylvanian)
  - Berea Sandstone (Devonian)
  - Unidentified Pottsville Group sandstone (Pennsylvanian)
  - Unidentified Allegheny Group sandstone (Pennsylvanian)

Sales

(figs. 12 and 13; tables 1, 9, 14, and 15)

- Tons sold = 1,069,398 (–27.0% from 2024)
- Value[5] = $54,666,419
- Leading counties (percentage of statewide sales):
  - Geauga (57.6%)
  - Wayne (14.5%)
  - Lake (9.1%)
  - Tuscarawas (5.6%)
  - Knox (3.9%)

Employment

(table 10)

- Production employees reported = 208
- Nonproduction employees reported = 76
- Average employee annual wage = $66,566
- Total wages earned = $18,838,128
- Average days worked per operation = 140

[5]Includes reported and estimated values. See footnote 1, p. 1.

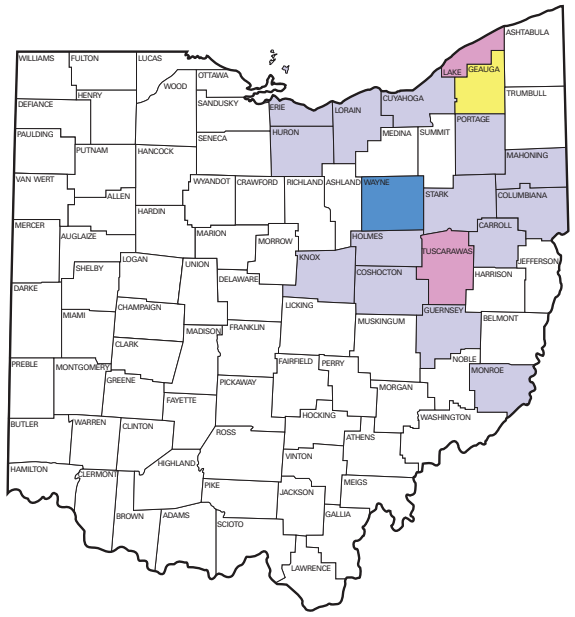


FIGURE 12. Sales of sandstone and conglomerate in Ohio in 2025, by county and quantity.

TABLE 14. ***Ohio sales of crushed sandstone and conglomerate in 2025, by county and use***

County	Tons sold														
	Total	Foundry sand	Glass sand	Metallurgical pebble	Refractory	Riprap	Aggregate	Silica flour	Polishing/ grinding sand	Fire and furnace sand	Engine sand	Frac sand	Construction	Industrial sand	Other/ unspecified
Carroll	1,002					1,002									
Columbiana	11,555					342							11,213		
Coshocton	2,497					375	2,122								
Geauga	616,286	55,934	86,817									49	190,734		282,752
Guernsey	29,455						29,455								
Holmes	117						117								
Huron	160												160		
Knox	41,441													41,441	
Lake	97,140						53,587						43,553		
Lorain	10,822						10,822								
Mahoning	6,147												6,147		
Monroe	11,656						11,656								
Portage	15,335														15,335
Stark	1,389												1,389		
Tuscarawas	58,414					4,268							52,570		1,576
Wayne	155,152					16,418	57,085						81,649		
TOTAL	**1,058,568**	**55,934**	**86,817**	**0**	**0**	**22,405**	**164,844**	**0**	**0**	**0**	**0**	**49**	**387,415**	**41,441**	**299,663**

TABLE 15. ***Ohio sales of dimension sandstone in 2025, by county and use***

County	Tons sold									
	Total	Refractory	Rough construction	Rubble	Grindstones	Rough architectural	Finished	Curbing	Flagging	Other/ unspecified
Columbiana	221					221				
Coshocton	2,920					2,400	520			
Cuyahoga	425									425
Erie	5,903		1,755	1,260		1,425	1,463			
Tuscarawas	1,361		1,361							
TOTAL	**10,830**	**0**	**3,116**	**1,260**	**0**	**4,046**	**1,983**	**0**	**0**	**425**

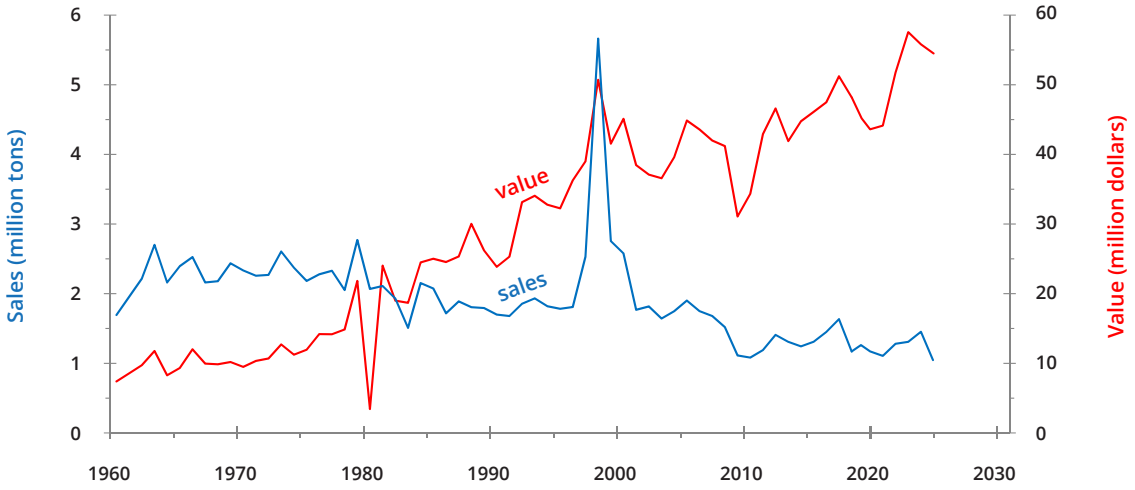


FIGURE 13. Sales and value of sandstone and conglomerate in Ohio since 1960.

CLAY AND SHALE

The ceramics industry in Ohio has a long and dynamic history. Potteries were established in the early 1800s to supply dinnerware; by the early 1900s, Ohio was producing tremendous amounts of building bricks, sewer pipes, roof and floor tiles, paving bricks, art pottery, and refractory products. Edward Orton, Jr., established the first ceramics engineering program in the nation at The Ohio State University in 1894. Ohio clay and shale are still being used to produce important ceramic products, though production tonnages are much lower than they were 100 years ago. Ohio's ceramic products are shipped throughout the eastern United States and Canada. Nearly all clay and shale produced in Ohio is used to produce value-added products (e.g., building bricks, industrial ceramics, pottery, expanded aggregate, quarry tile), thus the economic impact is much greater than the combined mined value.

Pennsylvanian shales and the clays of eastern Ohio are the primary sources of raw materials for the ceramics industry. Devonian and Mississippian shales of northern and central Ohio and Quaternary glacial clays of western Ohio are important secondary sources. General discussions of clay and shale geology in Ohio can be found in Stout and others (1923) and Lamborn and others (1938).

Production
(table 1)

- Tons produced (clay) = 648,144 (+24.4% from 2024)
- Tons produced (shale) = 389,595 (–27.2% from 2024)
- The 2025 U.S. state rankings for the 38 states producing clay and shale were unavailable (**USGS, 2025e**).

Sales
(figs. 14–17; tables 1, 9, 16, and 17)

- Clay:
  - Tons sold = 671,869 (+27.2% from 2024)
  - Value[6] = $6,975,389
- Leading counties for clay (percentage of statewide sales):
  - Tuscarawas (29.1%)
  - Greene (24.2%)
  - Athens (11.7%)
  - Paulding (9.2%)
  - Lucas (8.3%)
- Shale:
  - Tons sold = 387,072 (–29.5% from 2024)
  - Value[7] = $3,923,791
- Leading counties for shale (percentage of statewide sales):
  - Tuscarawas (34.3%)
  - Marion (20.6%)
  - Wayne (10.7%)
  - Washington (8.1%)
  - Harrison (6.8%)

Employment
(table 10)

Clay and shale, combined:

- Production employees reported = 225
- Nonproduction employees reported = 140
- Average employee annual wage = $83,097
- Total wages earned = $27,588,086
- Average days worked per operation = 122

[6]Includes reported and estimated values. See footnote 1, p. 1.
[7]Includes reported and estimated values. See footnote 1, p. 1.



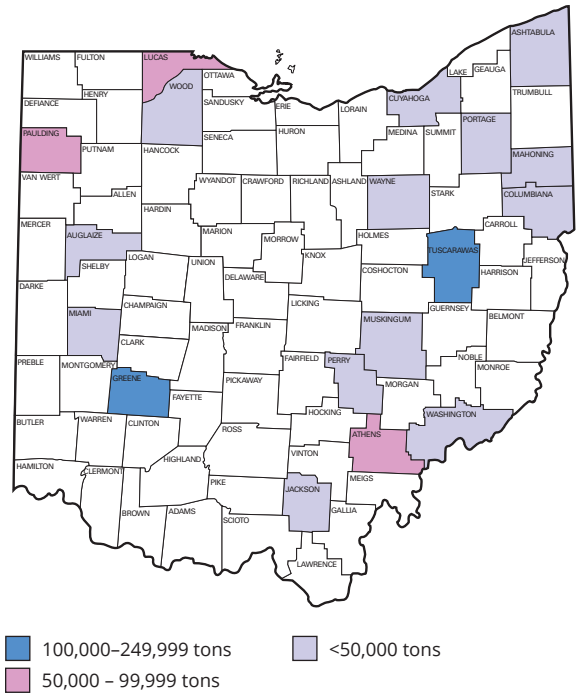


FIGURE 14. Clay sales in Ohio in 2025, by county and quantity.

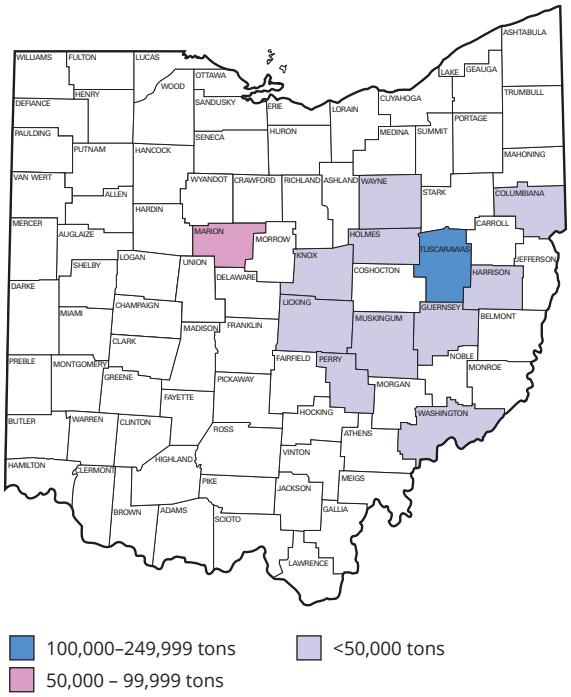


FIGURE 15. Shale sales in Ohio in 2025, by county and quantity.

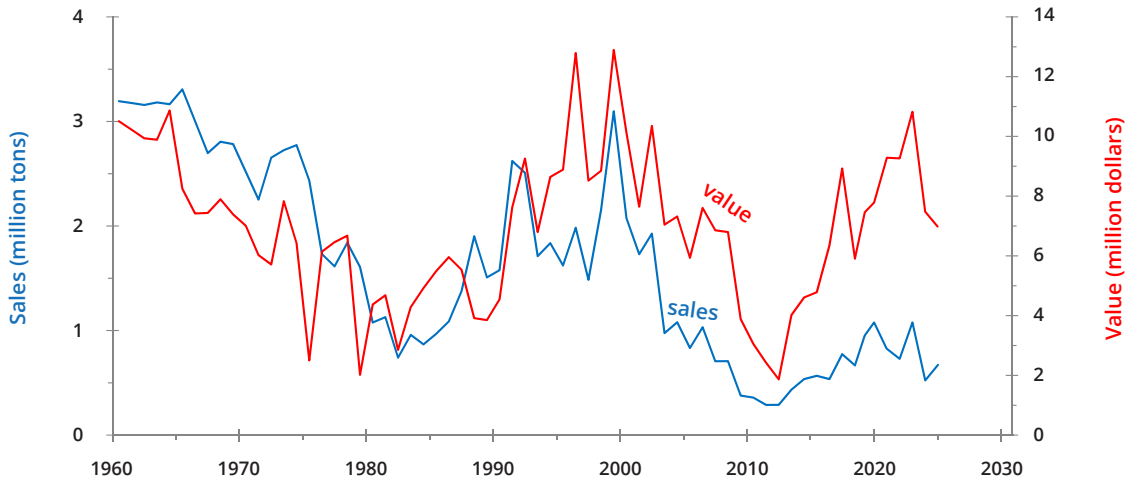


FIGURE 16. Sales and value of clay in Ohio since 1960.

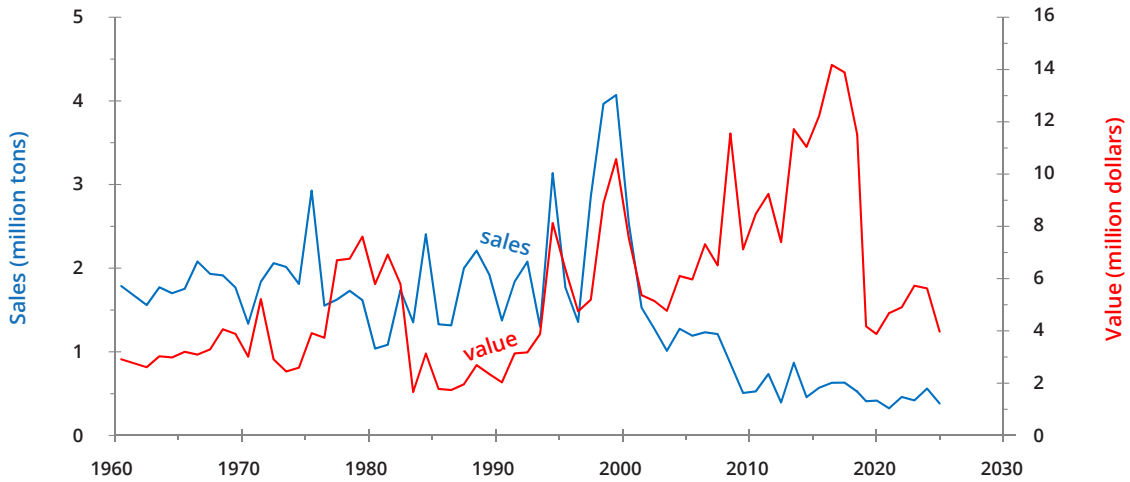


FIGURE 17. Sales and value of shale in Ohio since 1960.

TABLE 16. ***Ohio clay sales in 2025, by county and use***

County	Tons sold								
	Total	Common clay products	Stoneware	Vitrified products	Cement manufacture	Refractories	Construction	Landfill use	Other/ unspecified
Ashtabula	3,432						3,359		73
Athens	78,750							78,750	
Auglaize	1,987	1,987							
Columbiana	4,321	4,321							
Cuyahoga	1,956	1,616							340
Greene	162,368				162,368				
Jackson	25,790	25,790							
Lucas	55,449							55,449	
Mahoning	27,309						2,500	22,926	1,883
Miami	1,186	1,186							
Muskingum	8,056	4,636							3,420
Paulding	61,660				61,660				
Perry	20,419	20,419							
Portage	10,068	299					9,319		450
Tuscarawas	195,624	187,026			8,332				266
Washington	3,098						3,098		
Wayne	1,007						1,007		
Wood	9,389						9,389		
TOTAL	**671,869**	**247,280**	**0**	**0**	**232,360**	**0**	**28,672**	**157,125**	**6,432**

TABLE 17. ***Ohio shale sales in 2025, by county and use***

County	Tons sold							
	Total	Common clay products	Vitrified products	Cement manufacture	Lightweight aggregate	Construction	Landfill use	Other/ unspecified
Columbiana	11,729	11,729						
Guernsey	4,763					4,763		
Harrison	26,318	26,318						
Holmes	16,411				15,799	330		282
Knox	1,892							1,892
Licking	17,800	17,800						
Marion	79,863	79,863						
Muskingum	14,000							14,000
Perry	8,477	8,477						
Tuscarawas	132,697	132,697						
Washington	31,525	31,525						
Wayne	41,597	21,235				20,359		3
TOTAL	**387,072**	**329,644**	**0**	**0**	**15,799**	**25,452**	**0**	**16,177**

SALT

Salt was one of the first industrial minerals produced in Ohio and was a valuable commodity to early pioneers who obtained it from natural springs. The first State Legislature enacted laws concerning salt springs in 1803–1804 and wells were drilled in Jackson and Muskingum counties, leading to the first commercial salt production in the state. The highest-producing area for early salt production was in Meigs County, beginning in 1850. By 1903, Ohio was producing 14.7 percent of all salt in the United States (Bownocker, 1906). The modern salt industry in Ohio began in 1956 with the construction of the underground salt mine at Fairport Harbor in Lake County. A second large underground operation was constructed in Cleveland in 1957.

The primary use for Ohio salt in 2025 was ice control. Salt also was used as an additive in animal feed, for cattle blocks, and as a commercial and residential water-softening agent.

The recent stretch of warmer winters with lower-than-average precipitation have resulted in municipalities not needing to replenish salt supplies every year, which in turn results in fluctuating cycles of production, sales, and value.

Production
(table 1)

- Tons produced = 5,303,087 (+26.9% from 2024)
- U.S. ranking:
  - In the top 7 of 15 producing states (**USGS, 2025f**)
- Top producing geologic units (fig. 7):
  - Salina Group (Silurian)

Sales
(figs. 18 and 19; tables 1 and 9)

- Tons sold = 6,165,801 (+45.4% from 2024)
- Value[8] = $346,027,609

Employment
(table 10)

- Production employees reported = 330
- Nonproduction employees reported = 85
- Average employee annual wage = $92,472
- Total wages earned = $38,283,325
- Average days worked per operation = 231

[8]Includes reported and estimated values. See footnote 1, p. 1.

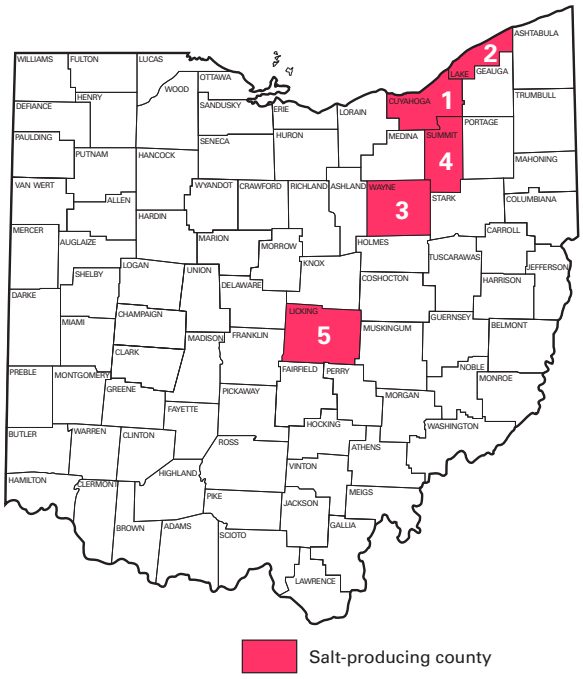


FIGURE 18. Counties producing salt in Ohio in 2025 and their rankings in sales.

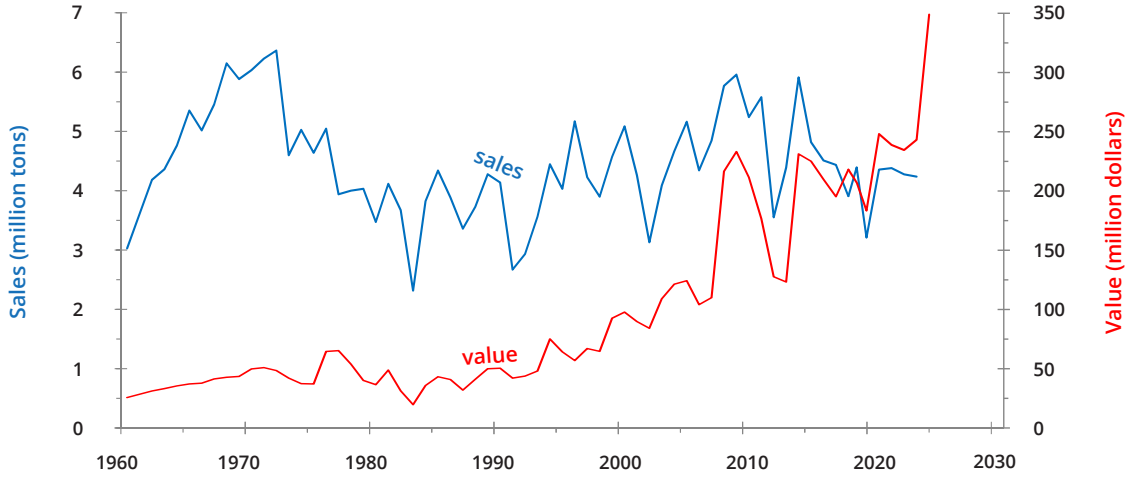


FIGURE 19. Sales and value of salt in Ohio since 1960.

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STATE OF OHIO
Mike DeWine, Governor
DEPARTMENT OF NATURAL RESOURCES
Mary Mertz, Director
DIVISION OF GEOLOGICAL SURVEY
J.D. Stucker, Acting Chief

Map IM-1 2025 Edition
11/2026

MAP OF ACTIVE MINERAL INDUSTRY OPERATIONS IN OHIO 2025

by
Christopher E. Wright

GIS Database Administration and Cartography by Jason Piwarski

ABOUT THE MAP

This map is based on operators included in the supplementary appendices of the *2025 Report on Ohio Mineral Industries* (Wright, 2026) and is intended for general reference. Locations of mineral extraction operations are approximate and are based on permitting information on file at the Ohio Department of Natural Resources (ODNR) Division of Mineral Resources Management. The letters and numbers adjacent to the symbols are the state mine numbers used in the operators listed in the downloadable directories of the *2025 Report on Ohio Mineral Industries*. More information about specific operations may be found using the state mine number to refer to the table included on this map or in the directories of operators reporting production, sales, and value. An interactive map of mineral industries and operator information can be viewed online. More information is available on the ODNR Division of Geological Survey website at geology.ohiodnr.gov.

2025 OHIO ECONOMIC GEOLOGY IN BRIEF

In 2025, the total value[1] of coal was $90,167,346 and the total value[1] of all industrial minerals was $1,904,990,305 (table 1); their combined value is equivalent to $1,995,157,651 or approximately $168 per capita. The total production of coal was 1,748,381 tons (table 1), and the total industrial mineral production was 107,831,301 tons (table 1). The combined coal and industrial minerals production in Ohio during 2025 was 109,579,712 tons or approximately 9.2 tons per capita (fig. 1A), which is down 1.8 percent from 2024 production. In 2025, Ohio produced 49,978,154 barrels of oil, which is up 36.4 percent from 2024 production; Ohio also produced 2,102,143,114 thousand cubic feet of natural gas, which is down 2.4 percent from 2024 production (fig. 1B).

Reported and estimated total direct employment in the extractive industries of Ohio during 2025 totaled over 10,000 people. Industrial mineral production increased for salt and clay, while production decreased for limestone and dolomite, sand and gravel, sandstone and conglomerate, shale, and coal. Peat production did not occur in 2024 or 2025. In 2025, the production-leading commodity of limestone and dolomite was down 2.7 percent from 2024, with the second-leading commodity of sand and gravel down 2.4 percent from 2024; the third-leading commodity of salt was up 26.9 percent from 2024; the fourth-leading commodity of coal was down 7.3 percent from 2024.

[1]Includes reported and estimated values. Some operations reporting sales did not report a value for those sales. A statewide-average price per ton was calculated for each industrial-mineral commodity based on sales for which the value was reported. A statewide-average price per ton was calculated for coal based on method of production for which sales or value was reported. These calculated averages were used to estimate the value of the sales for which the actual values were not reported.

TABLE 1. *Fuel and nonfuel mineral sales and production in Ohio in 2025*

Commodity	Production[2]	Sales[3]	Value[3]	Change in value from 2024 (percent)
Limestone and dolomite	71,062,608 tons	69,707,912 tons	$1,140,033,509	+8.6
Coal	1,748,381 tons	1,728,048 tons	$90,167,346	+7.3
Sand and gravel	29,344,406 tons	29,529,016 tons	$353,363,588	+7.2
Salt	5,303,087 tons	6,165,801 tons	$346,027,609	+42.0
Sandstone and conglomerate	1,083,619 tons	1,069,208 tons	$54,666,419	-2.1
Shale	389,595 tons	387,072 tons	$3,923,791	-30.2
Clay	648,144 tons	671,869 tons	$6,975,385	+6.7
Peat	—	—	—	—
Gas	2,102,143,114 thousand cubic feet	not available	not available	not available
Oil	49,978,154 barrels	not available	not available	not available

[2]The production figures for industrial minerals are estimates, as many operators do not know actual production. For those operators that do not report production, production is assumed equal to sales or estimated from ODNR Division of Mineral Resources Management records.

[3]Includes material for captive use.

[4]The FOB value (free on board; value of mined product excluding insurance or transportation costs) of industrial minerals sold was estimated for those mines that failed to report this information and for those producing material for captive use. These estimates were calculated using a statewide-average price per ton based on reported FOB values.

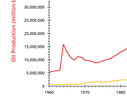


FIGURE 1, (A) Production of coal and industrial minerals in Ohio since 1960. (B) Production of oil and gas in Ohio since 1960.


MICHIGAN
INDIANA
PENNSYLVANIA
WEST VIRGINIA
KENTUCKY
CANADA
U.S.
LAKE ERIE
W. SISTER I.
NORTH BASS I.
MIDDLE BASS I.
SOUTH BASS I.
KELLEYS I.
Toledo
Cleveland
Akron
Canton
Columbus
Dayton
Cincinnati
Youngstown
Lake
Geauga
Ashtabula
Trumbull
Mahoning
Columbiana
Stark
Carroll
Portage
Summit
Medina
Wayne
Holmes
Tuscarawas
Coshocton
Harrison
Jefferson
Belmont
Monroe
Noble
Morgan
Washington
Meigs
Gallia
Lawrence
Scioto
Pike
Ross
Fairfield
Perry
Muskingum
Licking
Knox
Ashland
Richland
Crawford
Wyandot
Hancock
Seneca
Sandusky
Erie
Huron
Lorain
Medina
Summit
Portage
Trumbull
Ashtabula
Geauga
Lake
Cuyahoga
Williams
Fulton
Lucas
Ottawa
Sandusky
Wood
Henry
Defiance
Paulding
Putnam
Allen
Auglaize
Mercer
Van Wert
Hardin
Marion
Morrow
Delaware
Union
Logan
Shelby
Champion
Darke
Miami
Clark
Greene
Montgomery
Preble
Butler
Warren
Clinton
Fayette
Madison
Pickaway
Franklin
Hocking
Vinton
Jackson
Athens