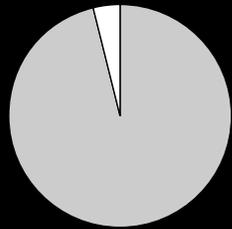
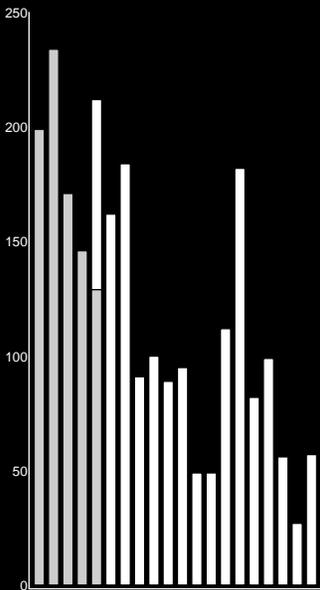


# Ohio



Production tonnage 1978-1997

U.S. Total  
Ohio Coal Production



Number of new permits 1978-1997

Interim Program  
Permanent Program

## Commercial coal production began before statehood

Ohio has an estimated 46 billion tons of coal beneath 12,000 square miles of the eastern third of the state. Recoverable coal reserves are estimated at 21 billions tons, 3.2 billion tons of which have been mined since 1800. Ohio was the eighth-largest coal-producing state in the nation between 1977 and 1997. In recent years production has dropped, principally because Ohio's coal is high in sulfur content.

Ohio first enacted a surface coal mining law in 1948, requiring in part a \$100 per acre reclamation bond. Ohio progressively strengthened its surface mining law in 1949, 1955, 1959, 1961, 1965, 1972, 1978, and 1981. At the time of its enactment, Ohio's 1972 mining law was one of the most stringent in the country. This law also created a state coal severance tax of four cents per ton to be used for abandoned mine land reclamation.

Ohio received primacy to regulate the surface coal mining operations within the state August 16, 1982. Its Abandoned Mine Land Program was approved on the same date, and its emergency program on September 24, 1992.

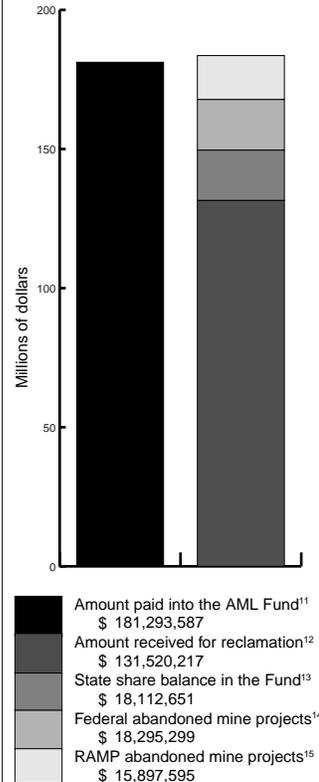
Together the state and Office of Surface Mining have completed 296 abandoned mine emergency projects costing over \$14 million. More than 60 percent of these projects eliminated subsidence hazards in the Steubenville, Youngstown, and Canton areas. Landslides have also been a major problem in Ohio that have required a significant portion of the emergency funding.

The Ohio Abandoned Mine Lands program has eliminated hundreds of high priority problems with reclamation costs over \$84 million. Over \$53 million has been spent on clogged stream projects, \$9 million on landslides, and \$6 million on highwalls. Ohio is second only to Kentucky in the amount of clogged stream reclamation that has been completed.

Even with the large amount of Abandoned Mine Lands reclamation work completed, over \$16 million of Priority 1, \$86 million of Priority 2, and \$91 million of Priority 3 problems are on the inventory of unreclaimed hazards. Ohio also spends more than \$1 million annually to eliminate emergencies, mostly unpredictable subsidence in populated areas.

## coal production<sup>10</sup>

	1978		1997		1978-1997 Rank
	Amount	Percent U.S. Total	Amount	Percent U.S. Total	
<b>Tons Produced</b>					
Surface	18,642,973	7.6%	13,058,054	2.2%	7
Underground	7,896,378	5.2%	16,859,874	4.0%	8
Lignite	0	0%	0	0%	0
<b>Total</b>	<b>26,539,352</b>	<b>6.3%</b>	<b>29,917,928</b>	<b>2.7%</b>	<b>8</b>
<b>Number of Producing Mines</b>					
Surface (bituminous coal)	287	8.6%	239	9.9%	4
Underground	28	1.1%	16	9.3%	10
Lignite (surface)	0	0%	0	0%	0
<b>Total</b>	<b>315</b>	<b>5.3%</b>	<b>255</b>	<b>6.1%</b>	<b>5</b>
<b>Mine Production</b>					
Average	84,251	118.5%	117,325	44.5%	
>1,000,000 tons	0	0%	6	2.9%	
300,000-1,000,000 tons	24	11.7%	10	2.9%	
<300,000 tons	291	5.1%	239	6.6%	



# Active mining and reclamation<sup>16</sup>

	1978	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	Total
<b>Number of New Permits</b>																					
Surface Mining	175	234	171	146	211	139	153	87	90	70	87	46	47	109	175	76	96	52	25	54	2,243
Underground Mining	20	0	0	0	0	0	15	1	0	0	1	2	1	3	6	5	3	4	2	3	66
Other	4	0	0	0	1	23	16	3	10	19	7	1	1	0	1	1	0	0	0	0	87
<b>Acres Permitted</b>																					
Surface Mining	11,874	20,318	15,378	12,559	15,813	19,631	24,340	12,699	11,681	14,763	19,056	14,141	8,088	10,419	8,766	6,362	12,671	5,637	1,977	4,022	250,195
Underground Mining	563	0	0	0	0	0	2,393	190	4	0	3	354	883	849	6,121	1,622	0	5,164	378	0	18,524
Other	265	0	0	0	0	2,371	4,719	3,094	4,961	164	229	5	23	0	62	6	0	0	0	0	15,899
<b>Acres of Bond Release</b>																					
Interim Prog. (final)	12,208	8,227	5,208	11,689	10,098	8,550	6,083	9,585	3,104	7,750	1,949	2,644	617	300	0	0	0	0	0	0	88,012
Phase 1	0	0	0	0	0	0	0	0	0	8,737	11,115	8,247	7,064	7,841	8,648	6,532	5,542	6,716	2,904	5,214	78,560
Phase 2	0	0	0	0	0	0	0	0	0	4,318	4,778	6,775	6,943	6,286	7,318	11,551	5,552	9,128	1,948	7,884	72,481
Phase 3	0	0	0	0	0	0	0	0	0	0	524	714	1,362	3,504	4,604	6,502	8,124	6,959	2,336	10,525	45,154
<b>Inspections</b>																					
Complete	NA	NA	NA	NA	NA	2,609	1,154	4,406	4,312	3,665	3,961	3,802	3,818	3,518	3,494	3,131	3,140	2,924	1,665	2,597	48,196
Partial	NA	NA	NA	NA	NA	3,043	2,614	7,544	7,613	6,191	6,714	6,785	5,901	5,781	4,755	4,747	3,966	2,178	3,131	76,872	
Oversight	0	0	0	0	1,776	346	314	468	NA	383	295	351	372	243	323	300	262	193	83	197	4,130
<b>Citations Issued</b>																					
NOV's	104	457	907	418	173	1,594	1,314	1,304	1,783	1,602	1,088	1,249	1,006	781	596	458	420	238	101	145	15,738
CO's	13	44	197	58	6	94	94	35	157	194	148	210	178	159	137	79	65	35	8	20	1,931

# Abandoned coal mine reclamation 1977-1997<sup>17</sup>

	Reclaimed Problems			Remaining Problems	
	OSM Emergency	State Emergency	Non-Emergency	Number	Estimated Cost
<b>Priority 1 &amp; 2 (Protection of Public Health, Safety, and General Welfare) and Emergency Projects</b>					
Clogged Streams (miles)	0	0	33.6	137.0	\$ 14,692,562
Clogged Stream Lands (acres)	0	0	6,475.2	11,737.5	62,325,891
Highwalls (feet)	3.0	0	77,558.5	57,053.0	7,254,298
Impoundments (count)	3.0	0	9.0	3.0	67,000
Piles & Embankments (acres)	0	0	134.0	29.0	270,300
Slides (acres)	47.6	8.5	397.9	92.4	1,158,023
Gases (count)	0	1.0	0	1.0	2,000
Equipment & Facilities (count)	0	0	74.0	44.0	323,000
Water Bodies (count)	0	0	38.0	35.0	766,429
Industrial Waste (acres)	0	0	35.0	2.0	7,500
Portals (count)	16.0	0	271.0	77.0	248,193
Polluted Water: Agriculture & Industrial (count)	0	0	1.0	1.0	529,311
Polluted Water: Human Consumption (count)	0	0	25.0	13.0	4,372,751
Subsidence (acres)	21.2	3.5	49.6	134.5	8,051,390
Surface Burning (acres)	1.8	0	74.7	77.0	789,822
Underground Mine Fires (acres)	0.1	.2	0	0	0
Vertical Openings (count)	23.0	7.0	216.0	122.0	842,943
<b>Total</b>					<b>\$ 101,701,413</b>
<b>Priority 3 (Environmental Restoration)</b>					
Bench (acres)	0	0	0	95.0	\$ 373,000
Industrial Waste (acres)	0	0	0	2.0	80,000
Equipment & Facilities (count)	0	0	3.0	13.0	52,200
Gob (acres)	0	0	128.1	732.5	3,953,339
Highwall (feet)	0	0	9,620.0	28,765.0	6,317,300
Haul Road (acres)	0	0	0	0	0
Mine Opening (count)	0	0	19.0	15.0	30,000
Pit (acres)	0	0	18.0	360.5	2,565,851
Spoil Area (acres)	0	0	601.8	21,966.1	76,989,198
Slurry (acres)	0	0	0	0	0
Slump (acres)	0	0	0	11.0	1,050,000
Water (gallons/minute)	0	0	100.0	83.0	129,550
<b>Total</b>					<b>\$ 91,540,438</b>