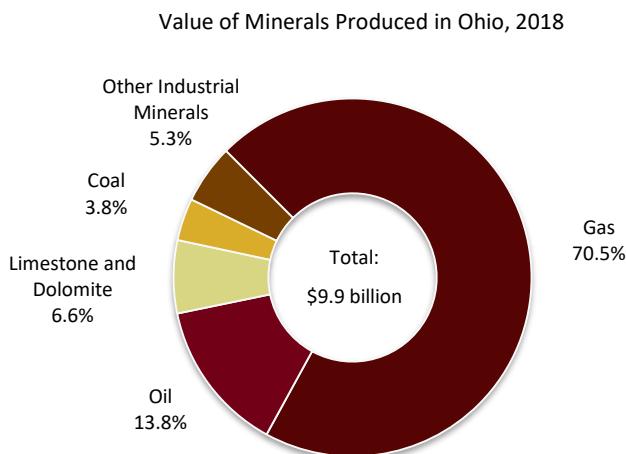


Natural Gas Remains Ohio's Dominant Mineral Resource

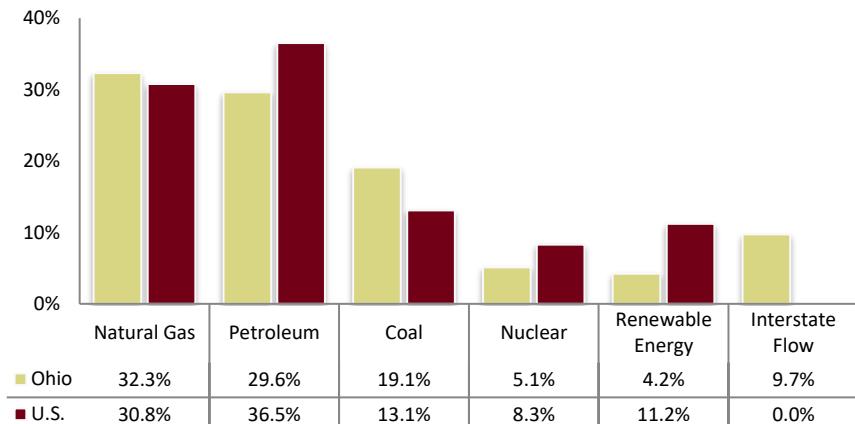


Source: Ohio Department of Natural Resources

- The value of mineral resources extracted in Ohio in 2018 totaled \$9.9 billion. Natural gas accounted for the largest share of this total at \$7.0 billion (70.5%), followed by oil at \$1.4 billion (13.8%), and limestone and dolomite at \$645.3 million (6.6%). Other industrial minerals including salt, sand and gravel, clay, shale, and sandstone ranked 4th at \$529.4 million (5.3%). The value of Ohio coal, which declined for the fifth consecutive year, was \$379.6 million (3.8%).
- The total value of Ohio's mineral resources production increased by 67.8% between 2016 and 2018. This was primarily due to oil and natural gas production values, which increased by 62.3% and 106.5%, respectively. The production value of limestone and dolomite increased 6.3%, while other mineral resources increased a slight 0.3% during this time period. In contrast, the value of coal produced fell by 29.9% between 2016 and 2018.
- Belmont County was the top natural gas producing county in Ohio in 2018, yielding 995.7 million mcf or 39.9% of the state's natural gas production. Guernsey County had the highest oil production at 9.78 million barrels, 27.5% of the oil produced statewide.
- Belmont County also was top among the 13 coal producing counties, accounting for nearly 54.8% (approximately 5.2 million tons) of the state's total production of nearly 9.6 million tons.
- Industrial minerals produced in Ohio include mostly limestone and dolomite and lesser amounts of sand and gravel, salt, sandstone and conglomerate, shale, and clay. Wyandot County had the most sales of limestone and dolomite in 2018 (7.6 million tons), while Stark County led in sales of sand and gravel (4.1 million tons). Geauga County led in sales of sandstone and conglomerate, Tuscarawas County led in sales of both clay and shale, and Cuyahoga County led in sales of salt.

Natural Gas Is Ohio's Largest Energy Source, But Ohio Remains Strongly Reliant on Coal Relative to U.S.

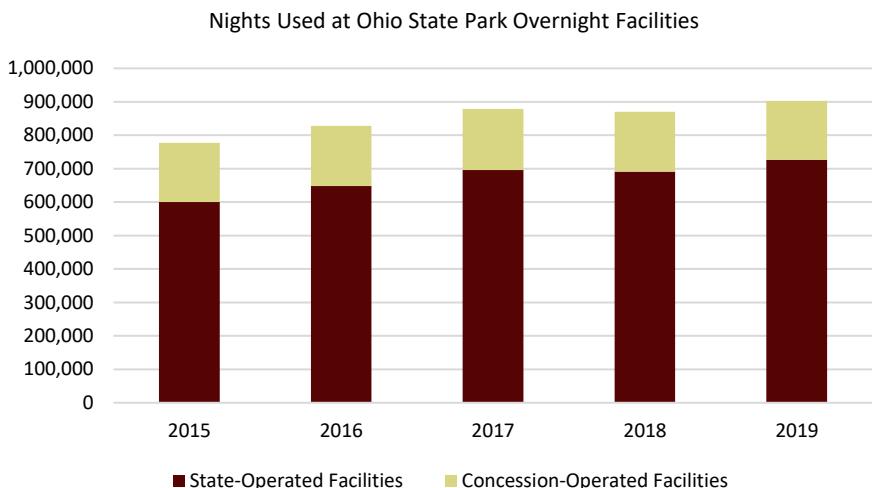
Ohio and U.S. Energy Consumption by Source, 2018



Source: United States Energy Information Administration

- In 2018, natural gas was the largest source of energy consumed in Ohio (32.3%) while petroleum was the largest source in the entire U.S. (36.5%). Natural gas gained its top ranking in Ohio in 2018 for the first time since the U.S. Energy Information Administration began recordkeeping in 1960. Coal was Ohio's primary source of energy for more than five decades, until it was eclipsed by petroleum in 2012.
- Petroleum ranked 2nd among the energy sources consumed in Ohio in 2018, at 29.6%. It was Ohio's largest source of consumption in five of the previous six years.
- Ohio coal consumption declined by 50.1% from 2008 to 2018 during which time it dropped from the primary energy source to the 3rd largest energy source. In 2018 coal accounted for 19.1% of Ohio's total energy consumption, still significantly higher than the national average of 13.1% for that year.
- Renewable sources made up 4.2% of energy consumed in Ohio in 2018; nationally, these sources made up 11.2%. The remaining 9.7% of Ohio's energy consumption came from sources in other U.S. states.
- Ohio was the 8th largest energy user among the 50 states in 2018, due primarily to Ohio's relatively large population. On a per-capita basis, Ohio ranked 23rd in the nation in energy consumption.
- Ohio's industrial base requires significant energy resources. Overall energy usage by Ohio's industrial customers was 6th among states in 2018, and ranked 2nd in electricity usage behind Texas.
- Ohio's overall energy use declined 6.1% from 2008 to 2018. By comparison, overall energy use in the U.S. grew 2.3% over that period.

Overnight Visits to Ohio State Parks Top 900,000 in 2019 with Camping the Most Popular Option



Source: Ohio Department of Natural Resources

- The number of uses of overnight accommodations in Ohio's state parks has increased over the past five years from 777,305 nights in 2015 to 902,689 nights in 2019, an increase of 16.1%. Over this time period, overnight stays in state-operated facilities increased by 21.0% from 599,942 in 2015 to 726,175 in 2019. The popularity of overnighting in concession-operated facilities dipped slightly, by 0.5%, from 177,363 in 2015 to 176,514 in 2019.
- Of the total nights used in 2019, 726,125 (80.5%) were in state-operated campgrounds, cabins, getaway rentals, or group lodges, while 176,514 (19.5%) were in concession-operated lodges and cabins.
- Camping, the most popular form of overnight stay in Ohio's state parks, comprised 74.7% of overnight stays in 2019. Lodges made up 15.2% of nights used, cabins comprised 8.9%, and getaway rentals comprised 1.2%.
- Among overnight accommodations at state parks, the number of overnight stays at state park campgrounds has increased the most since 2015 (23.2%). The number of overnight stays in state park cabins had the second highest increase over this time (7.6%).
- In FY 2020, approximately \$69.2 million was spent on state park operations. Of this amount, approximately 46.4% was funded by fees, charges, and other sources while 53.6% was funded by the GRF.
- In FY 2020, state parks generated approximately \$26.9 million in revenue. The largest source of revenue was camping fees (59.9%), followed by gift shop sales (11.8%), dock permit fees (10.9%), cabin rentals (10.9%), and concession fees (3.9%).

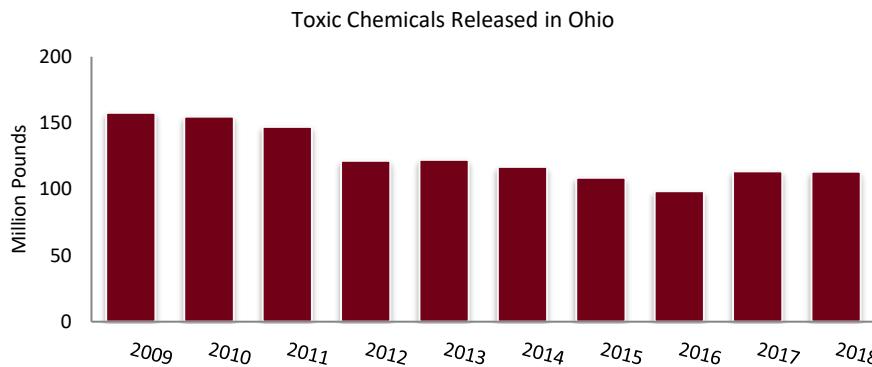
Ohio's 4,721 Public Water Systems Serve 11 Million People Daily

Ohio's Public Water Systems by Category, 2020			
Category	Ground Water	Surface Water	Total Systems
Community	1,014	300	1,314
Transient Noncommunity	2,742	5	2,747
Nontransient Noncommunity	633	27	660
Total	4,389	332	4,721

Sources: Ohio Environmental Protection Agency; U.S. Environmental Protection Agency

- Ohio's nearly 4,800 public water systems (PWS) provide drinking water to 11 million people daily and range in size from large municipalities to small churches and restaurants relying on a single well. PWS are regulated by the Ohio Environmental Protection Agency (Ohio EPA). The number of PWS in Ohio fluctuates from year to year.
- There are three types of PWS in Ohio:
 - *Community*: Serves at least 15 water service connections used by year-round residents or regularly serves at least 25 year-round residents. Examples include cities, mobile home parks, and nursing homes.
 - *Nontransient noncommunity*: Serves at least 25 of the same persons over six months per year. Examples include schools, hospitals, businesses, and factories.
 - *Transient noncommunity*: Serves at least 25 different persons over 60 days per year. Examples include campgrounds, parks, highway rest stops, restaurants, and gas stations.
- Of the 4,721 PWS in Ohio (as of 2020), 4,389 (93%) use ground water (wells) and the remaining 332 (7%) use surface water (lakes or rivers).
- In 2019, the Ohio EPA awarded Water Supply Revolving Loan Account loans totaling close to \$109 million to help communities address drinking water infrastructure needs. In addition, about \$21 million in principal forgiveness funding was available to help small, disadvantaged communities.
- In 2019, the U.S. EPA categorized 58 of Ohio's PWS as a "serious violator." Serious violators are those that have a specified number of uncorrected violations of varying severity. These systems are required to become compliant within six months, or be placed under formal enforcement. The number of serious violators in Ohio since 2014 has ranged from a high of 114 (CY 2014) to a low of 40 (CY 2016). Violations could include those related to monitoring and reporting, health, and public notification requirements.
- In 2019, the U.S. EPA noted that 35 of Ohio's PWS had acute health violations.

Ohio's Toxic Chemical Releases Decreased by 28.2% Over Past Ten Years



- The amount of toxic chemicals released or disposed of in Ohio, as reported in the Toxic Release Inventory (TRI), declined from 157.7 million pounds in 2009 to 113.3 million pounds in 2018, a decrease of 28.2% during this period.
- Three industries – chemicals (30.7 million pounds), primary metals (24.9 million pounds), and electric utilities (19.8 million pounds) – were responsible for 63.9% of Ohio's total releases in 2018.
- Three chemicals – zinc compounds (15.9 million pounds), sulfuric acid (12.3 million pounds), and nitrate compounds (9.9 million pounds) – were responsible for 33.7% of Ohio's total releases in 2018.
- Ohio ranked 9th nationally in total releases in 2018. Alaska released the largest amount of toxic chemicals (972.0 million pounds) while Vermont released the least (0.4 million pounds). As seen in the table below, Ohio ranked above all neighboring states except Indiana.
- Through the TRI, a database of information that certain specified facilities are required to report, the U.S. Environmental Protection Agency tracks hundreds of listed chemicals released into the air, water, and land in quantities above threshold levels in a given year. In 2018, 1,322 Ohio facilities submitted TRI reports.

Toxic Chemical Release Rankings for Ohio and Neighboring States, 2018

State	National Rank	Toxic Releases (Million Pounds)
Indiana	7	129.0
Ohio	9	113.3
Michigan	12	78.5
Pennsylvania	17	55.0
Kentucky	19	50.8
West Virginia	29	30.8