Although coal shipments have declined in recent years, coal is still an important part of the nation’s industrial economy. Well over 90% of U.S. coal consumption is used for electricity generation while some coal is used to produce coke and for other industrial purposes. U.S. coal is also exported to countries all over the world for steelmaking and power generation. In the past few years, U.S. coal exports have been equivalent to around 14% of U.S. coal production, more than double the percentage of ten years ago.

### Coal markets have been changing.

According to the Energy Information Administration (EIA), U.S. coal production in 2020 was 534 million tons, down 54% from the all-time high of 1.17 billion tons set in 2008 and the lowest annual total since 1965.

U.S. coal consumption in 2020 was approximately 477 million tons, down 19% from 2019 and 58% lower than the 2007 peak of 1.13 billion tons.

Because electricity generation accounts for so much of U.S. coal consumption, the electricity market is key to coal’s fortunes. For decades, total U.S. electricity generation rose steadily, more in less in tandem with economic growth.

Over the past 15 years, though, total U.S. electricity generation has been roughly flat while coal’s share has plunged. In the 1990s, coal’s share averaged 52%. By 2005 it had fallen to 50%. In 2020, it was down to 19%. Meanwhile, the natural gas share rose from 16% in 2000 to 24% in 2010 to 40% in 2020. For renewables other than hydroelectric (mainly wind and solar), the share rose from 2% in 2000 to 13% in 2020.

Concerns about the environmental impact of coal has played a major role in its decline, but market forces have been even more important. Rapid increases in natural gas production brought about by technological advances in natural gas extraction especially hydraulic fracturing, or fracking, has meant that natural gas is much more plentiful and cheaper for electricity producers than it used to be.
Through technological advances, responsive service, competitive rates and massive private investments, railroads continue to provide safe, reliable high-value transportation service to their coal customers.

U.S. coal production is focused in a relatively small number of states, but large amounts of coal are consumed all over the country.

According to EIA data, 67% of U.S. coal shipments in 2020 were delivered to their final destinations by rail, followed by water (13%, mainly barges on inland waterways); truck (10%); and conveyor belts (10%, mainly at minemouth plants).

As coal’s share of U.S. electricity generation has fallen, so too have rail coal volumes. In 2008, U.S. Class I railroads originated a record 7.71 million carloads of coal. In 2020, coal carloads were down to 3.0 million, 61% lower than 2008’s peak.

In 2020, coal accounted for 25% of originated tonnage for U.S. Class I railroads, far more than any other commodity, but coal tonnage in 2020 was down 60% from 2008’s peak. Coal accounted for 14% of Class I rail revenue in 2020; only intermodal, chemicals and farm products accounted for more.

Nearly all coal transported by rail moves in highly productive unit trains, which often operate around the clock, use dedicated equipment, and generally follow direct shipping routes. Revenue per ton-mile (RPTM) is a surrogate for rail rates. In 2019, average RPTM for coal was 2.15 cents. The average for all commodities other than coal was 5.12 cents.