

E15 Price Trends from January 2022 to early April 2023

E15prices.com is a web site that allows users to submit actual gas station retail prices for E10, E15, and other fuels. This crowd-sourced data provides the public with near real-time information about the retail prices for various fuel options offered at specific stations. Over time, the user-submitted data is also helpful in identifying pricing changes and trends in the E15 marketplace.

To get a better sense of recent E15 and E10 pricing dynamics, RFA examined all E15 and E10 prices submitted to E15prices.com since the beginning of 2022. Between January 1, 2022, and April 13, 2023, a total of 1,520 user submissions to E15prices.com included prices for both E15 and E10 at the same retail location on the same date.

- The average of the 1,520 prices reported for E10 was **\$3.686 per gallon**.
- The average of the corresponding 1,520 prices reported for E15 was **\$3.413 per gallon**.
- Thus, the average discount for E15 was **\$0.273 per gallon, or 7.4%**.

Other key findings from RFA's analysis of this data are described below.

- The 1,520 pairs of E10 and E15 prices were reported from 581 unique retail locations operating in 30 states. This is equivalent to about 21% of the 2,752 known stations in the E15prices.com database (it is estimated that nearly 3,000 stations offer E15 today, but some are missing from our database).
- Four states (Minnesota, Iowa, Wisconsin, and South Dakota) accounted for 795 "price pair" reports, or 52% of the total. These four states are home to 44% of the known stations offering E15 in the E15prices.com database, meaning the share of total price reports coming from those four states is fairly representative of the share of total U.S. stations located in those states.
- In 84% of the "price pair" reports, E15's discount to E10 was between \$0.05 and \$0.50 per gallon (see histogram and distribution curve charts below). Nearly half of all reports (49.3%) had an average E15 discount between \$0.15 and \$0.50 per gallon. In 11% of the reports, E15's discount to E10 was greater than \$0.50 per gallon.
- E15 prices were higher than E10 prices in just 14 of the 1,520 "price pair" submissions (less than 1%). Stations where E15 prices were higher than E10 prices often carried the brand of a major oil company (Exxon- and Mobil-branded stations had two of the three highest reported E15 price premiums to E10).
- Prices were most often reported from Sheetz stores. Of the 1,520 total "price pair" reports, 336 (22%) came from 185 unique Sheetz locations. On average across the 336 Sheetz submissions, E15 was priced at a \$0.73 per gallon discount to E10, equal to a 19% discount on average. Notably, this average includes approximately 90 price reports submitted during special Sheetz E15 promotions around the Independence Day and Thanksgiving holidays (these promotions often resulted in E15 prices \$1-2 per gallon below E10).
- 295 "price pair" reports were received from 129 unique retail sites operated by Casey's General Stores. The average E15 discount to E10 at Casey's stores was \$0.15 per

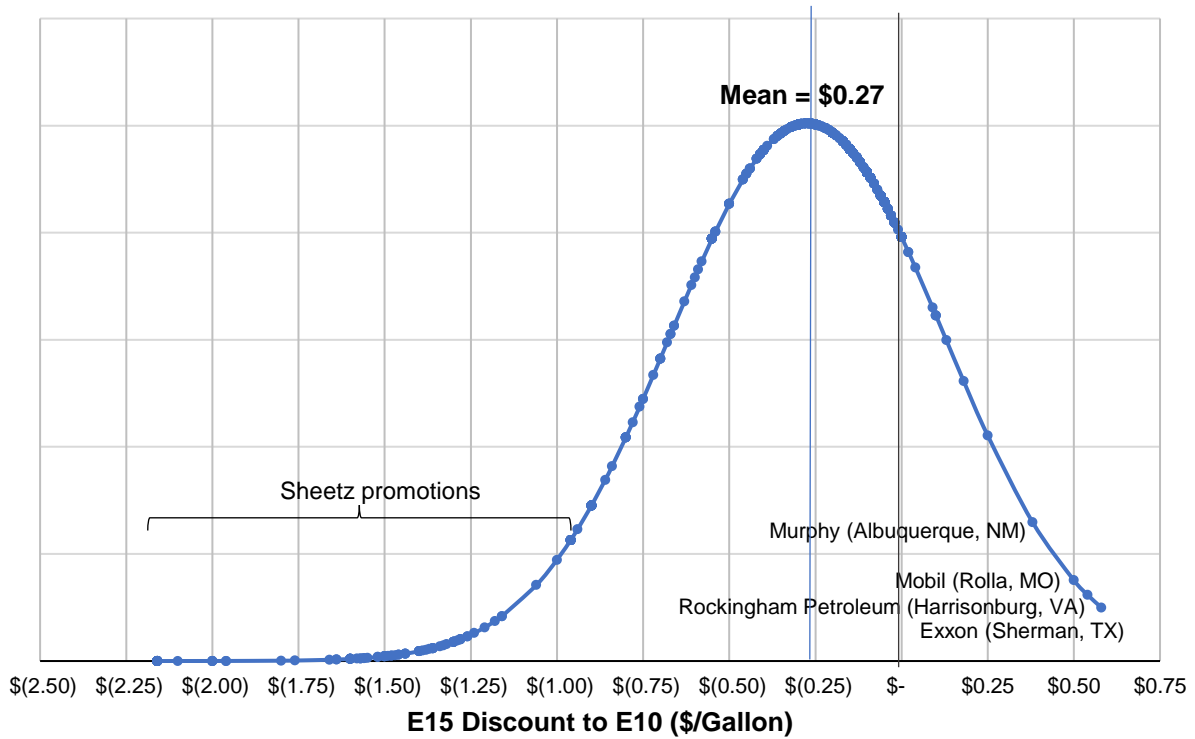
gallon, which was 4.4% lower than the average reported E10 prices from these same locations.

- 215 “price pair” reports were received from 64 unique Kwik Star/Kwik Trip locations. The average E15 discount to E10 was \$0.17 per gallon, which was 5% lower than the average reported E10 prices for these same locations.
- 163 “price pair” reports were received from 19 unique Minnoco retail stations. The average E15 discount to E10 was \$0.14 per gallon at these stations, 3.8% lower than the average reported E10 price.
- The fifth-leading retailer by “price pair” reports was Cenex, with 59 reports from nine unique locations. The average E15 discount to E10 at these stations was \$0.11 per gallon, or 3.2% lower than E10.
- Of the states with more than 40 “price pair” submissions during the study period, Pennsylvania (E15 priced \$0.88 per gallon below E10), Ohio (\$0.65 per gallon), and North Carolina (\$0.61), respectively, saw the largest average E15 discounts to E10. Given the heavy presence of Sheetz stations in these states (Sheetz stations accounted for 94% of the 227 reports from these three states combined), these statewide average E15 discounts were significantly influenced by price reports received during Sheetz’s Independence Day and Thanksgiving promotions.
- The smallest average E15 discounts to E10 were in Indiana (E15 priced \$0.09 per gallon below E10), Missouri (\$0.10 per gallon), and Nebraska (\$0.11 per gallon), respectively.
- On a monthly basis, the largest average discount occurred in November 2022, when prices reported to the web site showed E15 was \$1.051 per gallon lower than E10 on average. This large average discount is due to the high number of prices reported during Sheetz’s Thanksgiving holiday promotion. Of the 153 “price pairs” reported during November 2022, 93 were related to the Sheetz promotion (which often resulted in discounts of \$1-2 per gallon).
- The smallest monthly average discount occurred in September 2022, when E15 was priced \$0.139 per gallon lower than E10 on average.
- Of the 1,520 “price pairs” reported, it appears 134 were related to Sheetz Independence Day and Thanksgiving holiday promotions. Removing those reports results in an average across the remaining 1,386 “price pairs” of \$0.19 per gallon.
- On average, 101 “price pair” reports were received per month, ranging from a low of 64 reports in February 2022 to a high of 153 in November 2022. Across the 465 days between Jan. 1, 2022 and April 11, 2023, an average of 3.3 E10 and E15 “price pairs” were submitted per day.

Disclaimer:

The information in this summary report and available on E15prices.com and E85prices.com reflects prices reported by web site users. The information is only indicative of prices reported by users for particular locations at the time of submission. RFA assumes no responsibility or liability for any errors or omissions in the content of this summary document or the E15prices.com and E85prices.com websites. The information contained in this document and on the E15prices.com and E85prices.com websites is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness, or timeliness.

Distribution Curve:
E15 Discount to E10 from 1,520 Price Reports via E15prices.com
(Jan. 1, 2022 to April 12, 2023)



E15prices.com Price Reports, Grouped by Size of E15 Discount to E10
(1,520 price reports from Jan. 1, 2022 to April 12, 2023)

