Summary Methodology for
Manheim Used Vehicle Value Index

Sample: All Manheim U.S. sales that fall into one of the 20 market classes. (i.e., excludes heavy trucks, motorcycles, etc.

Eliminate outliers: Calculate average miles and average price for each model year/make/body. For each transaction, calculate price and mileage deviation. Outliers are defined as those where both price *and* mileage are outside of 2.6 standard deviations.

Calculate mean sale price and mileage by market class.

Adjust prices for mileage. The per-mile adjustment is based on a simple linear regression for price and miles for each market class based on data for the current month. The mileage differential used is the current month's average mileage by market class minus the average mileage for that market class over the past 24 months.

Market classes weighted to total. In the original version of the Manheim Index, market class averages were sales-weighted to a total based on fixed weights that represented unit volumes sold in the calendar year 1998. Currently, the Index is weighted based on a 24-month rolling average of past sales by market class.

Seasonal adjustment. The mix- and mileage-adjusted total is seasonally adjusted using the X-13ARIMA-SEATS seasonal adjustment program.

Index rebasing*:* The Manheim Used Vehicle Value Index (MUVVI) was adjusted to improve accuracy and consistency across the data set as of the January 2023 data release. The starting point for the MUVVI was adjusted from January 1995 to January 1997. The index was then recalculated with January 1997 = 100, whereas prior reports had 1995 as the baseline of 100. All monthly and yearly percent changes since January 2015 are identical. Learn more about the decision to rebase the index.