



How Middlefield determines property assessments

The following overview is to help Middlefield taxpayers understand the assessment process. It does not intend to be a definitive statement, and the actual process may require additional information and documentation as deemed necessary by the Department of Revenue. We welcome your feedback and comments.

Middlefield Board of Assessors

All cities and towns in the State of Massachusetts assess the value of property using a Mass Appraisal system that applies a limited set of information on sold properties, to the larger number of unsold properties.

As defined by the State Department of Revenue (DOR), Mass Appraisal employs standardized procedures for collecting data and appraising property, to ensure that all properties within a municipality are valued uniformly and equitably. Every year, values are determined as of a given date, using common data, standard procedures, and statistical testing. Unlike individual fee appraisals to determine the market value of a particular property, the goal of Mass Appraisal is to assess all properties at their full and fair market value, whether the properties have sold recently or not, and thus achieve equity among all property values. Properties include homes, land, commercial properties, industrial properties, and mixed-use properties.

The valuation date for a given fiscal year (July 1-June 30), is January 1 of the *prior* year, and the revaluation reflects actual property sales *for the year prior to the valuation date*. For example, the assessment date for FY 2011 is January 1, 2010, and the sales analyzed are those occurring between January 1, 2009 and December 31, 2009. (This time frame can be extended, as described in step 3 below.) *Thus, assessed values always lag behind current market values.*

The standardized procedure for determining full and fair market value entails several steps:

1. Create the Sales Analysis database: This is the data collection and verification stage. Deeds for each sale are obtained from the Registry of Deeds, together with associated information about financing arrangements, types of transactions, and any special circumstances involved in the sale. Sold properties are inspected whenever possible, and property card adjustments are made if any changes or discrepancies are found. New assessed values are computed, if necessary, to account for any discrepancies.

2. Validate the sales: Sales that conform to specific criteria set forth by the DOR are considered “verified” or “qualified”. For example, they must be arms-length sales between a willing buyers and sellers, with no unusual circumstances. Sales that don’t meet these criteria – such as sales between family members and foreclosure auctions – are “coded out”, since they do not reflect true market values and could distort the results.

3. Verify that there is sufficient sales data:

The DOR requires that the sales transactions represent at least 2% of all properties in town. If there are insufficient sales, then sales of up to six months prior and six months following the valuation period must be used, until the 2% sales threshold has been achieved.

4. Apply statistical ASR and COD measures to stratified sales:

The sales data is grouped according to property class, for further statistical analysis. Two measures required by the DOR are the ASR (assessment-to-sales ratio) and the COD (coefficient of dispersion), each of which must fall within specified ranges for each class of property.

The **ASR** is the difference between new assessed values and sale prices. For all classes of property, the median ASR must be between 90% and 110%.

The **COD** measures the deviation between the new assessments and the sale prices. For single-family homes, the COD must be less than 10%.

The grouped sales or stratification report, shows the ASR and COD for each sale in each category, including by type of home, neighborhood, house style (ranch, colonial, cape, etc.), year built, lot size, and house size. Two other reports show the ASR and COD by the sale price and the sale date.

Each report provides a different perspective of the same data, in order to reveal any ASR and COD values that exceed the DOR limits.

5. Bring the ASR and the COD into compliance by changing the values of factors:

In order to bring an ASR or COD values that exceed the DOR limits into compliance, (i.e. to bring the new assessed values of sold properties closer to the sales prices), various factors are adjusted in the sales database, typically house location and style.

Location: Middlefield is a small, homogeneous town with no discernable economic neighborhoods. Therefore, while neighborhood codes continue to be listed on individual assessment records, this factor is not adjusted – only one set of rates is applied.

Style: Each house style in Middlefield has an associated base rate per square foot, which is applied to its valuation. Depending on sales, the relative values of various styles can change. Therefore, these base rates are reviewed and adjusted each year as part of the sales analysis, to help bring the ASR and COD values into compliance.

6. Apply any zoning adjustments: This factor does not apply to Middlefield. We have one residential zone in Middlefield, and one commercial zone. All residential properties in both zones (with grandfathered exceptions) require a minimum of two acres and 200 feet of road frontage. (Currently residential and commercial properties are assessed at a uniform rate.)

7. Determine land and structure values: A property assessment is the sum of the land value and the values of any structures upon it.

Value of structures are determined by state regulated cost tables adjusted for Middlefield, and by weighted measures such as the construction grade and how well it has been maintained. Particulars include building style, number of rooms, height, square footage, and year built.

There are two methods for determining land values:

- **Land only sales:** When land with no structures is sold, that sale can be considered representative of the land value for properties in the neighborhood.
- **Land residual method:** In a Town like Middlefield, where few land sales occur each year, a “land residual” method is also used to determine land values. Residual acreage (also known as excess or back acreage) is land beyond the primary that has no apparent development potential, but can provide other values to the property owner, including privacy, farming, forestry, and preservation. The value of such acreage is relatively low when compared to the primary building site, as determined by assessment/sales ratios in the land residuals analysis.

In Middlefield, the current (2011) derived value of a primary two-acre building site is \$29,500. The residual value of the next 25 acres is \$1,600 per acre, and the residual value beyond 27 acres was determined to be \$800 per acre.

7. Use the model repeatedly, adjusting factors as necessary: At this stage, the primary calculations are fine-tuned to bring in other factors such as condition, effective age, and construction grade. Even such factors as bedroom and bathroom count, interior wall material, building sub area sizes, and outbuilding values, can be adjusted to explain why a property sold for a particular price. Each time a new value for a factor is tried, another series of stratifications is run. All stratifications must yield the required ASR and COD parameters.

8. Final certification run: No matter how the data is parsed, the adjustment of various factors should derive the actual sales prices, and compliant ASR and COD measures through all stratifications of the sales analysis database. At this point, the DOR certification requirements will have been met.

9. Apply the sales analysis database to the entire universe of properties: Once the refined sales analysis has been certified by the DOR, the various valuation parameters can be applied to all unsold properties, to derive their new assessment values.

At this point, the Mass Appraisal process is over. If this is a [Triennial Revaluation and Certification](#) year, a public disclosure notice is printed in the local paper, stating when and where values can be reviewed.