

COMPUTER ASSISTED MASS APPRAISAL SYSTEMS—RESIDENTIAL PROPERTY

This brochure explains how Assessors in Arizona use computerized systems to value single family residential property for property tax purposes. There are two terms included in the title of this brochure that should be explained.

Computer Assisted

This term means that the calculations necessary to value property are done by automated computer systems. There are dozens of calculations made in the appraisal of even the most simple home. Before computers became available, these calculations were done by hand, using calculators, adding machines or other calculating devices. The results of each calculation were written down by hand, and all the calculations were then added together to obtain the final answer. Due to the number of calculations and human error, at times the final answer was incorrect. In addition to the potential for error, hand processing of thousands of appraisals took a great deal of time and personnel.

Computer assistance allows thousands of calculations per second to a very high degree of accuracy. Not only are the results more accurate, but the number of employees required to do the calculations is greatly reduced. Appraisers can now devote more time to accurately gather the information necessary to value the property. The calculations done by the computer are the same calculations that were made before, they are just completed more quickly and with greater accuracy than ever before.

Mass Appraisal

The term "mass appraisal" is defined by the International Association of Assessing Officers as *"...the systematic appraisal of groups of properties as of a given date..."*

This differs from single property appraisal techniques where the value is estimated for a single property. Technically known as a "fee appraisal," the appraisal of an average single family home may cost between \$250 and \$500. In contrast, the County Assessor averages only a fraction of this cost in assessing residential properties as well as complex commercial and vacant land properties.

In order to handle the thousands of properties required to be appraised by state law each year, Assessors must use procedures that allow them to get the job done on time and with the funds available. These procedures are very similar to those used by fee appraisers, but are adapted for mass appraisal use and computer systems.

Valuing Your Home

Using Computer Assisted Mass Appraisal techniques, there are two methods available to Arizona Assessors for valuing your home: *replacement cost new less depreciation, and sales analysis.*

Replacement Cost New Less Depreciation

This appraisal technique is used by both fee appraisers and Assessors to value property. This method starts with the cost to build or reproduce your property today, as if it were new, and is called "Replacement Cost New." Replacement Cost New figures are based on many factors, including the size of the home, type of construction, quality of materials, design, and features in the home. The construction cost are obtained from a nationally recognized cost valuation company providing local construction costs. These costs are computerized and updated annually. The land value is obtained by sales analysis of comparable vacant land.

Of course, few properties are brand new, so depreciation must be deducted for wear and tear, actions of the elements (sun, rain, snow, etc.), and physical or insect damage. Depreciation is based upon observation by trained appraisers, along with the age and current condition of the structure. Depreciation tables which have been developed through structure mortality studies and sales of similar types of properties are used to estimate the loss in value from the property's new condition. Further depreciation is considered for functional and economic obsolescence that the property might suffer. The total amount of depreciation is then subtracted from Replacement Cost New to obtain the current estimated value of the house and other physical improvements (fences, swimming pools, driveways, etc.) The land value is then added to the depreciated value of the improvements to obtain the total property value.

Sales Analysis

Perhaps the oldest method for estimating the value of property is to examine what similar properties are selling for in the local market. This method is used by both fee appraisers and Assessors.

Through the analysis of sales using computers, the average selling price per square foot of various types of homes can be determined. Sales are independently analyzed for each county in Arizona, and each market area within the county. The average price for each type of home is then adjusted for the specific differences between the average home and the home being valued. Adjustments are made for items such as size, construction type, quality of materials, design, amenities, age, and condition. Each home is adjusted based upon its individual characteristics.

Arizona Property Tax— Is One Appraisal Method Better Than The Other?

Both methods, if used appropriately, are very accurate. Of course, the sales analysis method has the inherent advantage of reacting to what buyers and sellers in the

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local market are doing. That is why the majority of single family homes and condominiums in Arizona are valued using the sales analysis method. Where adequate sales are not available for analysis, the cost method is used. This generally occurs in rural areas or with very high quality or low quality homes which do not sell that frequently.

How Can I Find Out Which Method Was Used On My Home?

Contact your local County Assessor's Office. The Assessor's staff will assist you with any questions you might have regarding how your property was valued.

Can I Select Which Method Is Used For My Home?

In general, no. The Assessor selects which method to use based upon technical considerations such as the accuracy of each method for that area and the number of sales available for analysis.

Arizona County Assessors

Apache County Assessor
PO Box 770
St. Johns Arizona 85936
(928) 337-4364

Cochise County Assessor
PO Box 168
Bisbee Arizona 85603
(520) 432-8650

Coconino County Assessor
110 East Cherry Avenue
Flagstaff Arizona 86001
(928) 679-7962

Gila County Assessor
1400 East Ash Street
Globe Arizona 85501
(928) 425-3231, Ext. 8712

Graham County Assessor
921 Thatcher Blvd.
Safford Arizona 85546
(928) 428-2828

Greenlee County Assessor
PO Box 777
Clifton Arizona 85533
(928) 865-5302

La Paz County Assessor
1112 Joshua Avenue, Suite 204
Parker Arizona 85344
(928) 669-6165

Maricopa County Assessor
301 West Jefferson
Phoenix Arizona 85003
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Mohave County Assessor
700 W Beale Street
Kingman Arizona 86402
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Navajo County Assessor
PO Box 668
Holbrook Arizona 86025
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115 North Church Avenue
Tucson AZ 85701
(520) 740-8630

Pinal County Assessor
PO Box 709
Florence Arizona 85232
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Santa Cruz County Assessor
PO Box 1150
Nogales Arizona 85621
(520) 375-8030

Yavapai County Assessor
1015 Fair Street
Prescott Arizona 86305
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Yuma County Assessor
410 South Maiden Lane
Yuma Arizona 85364
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