

RESIDENTIAL SALES DATA METHODOLOGY

CYs 2002, 2003 and 2004 (Revised August 2007)

A. Source of Data

The Sales data for the calendar years (CYs) 2002, 2003 and 2004 are derived from the MdProperty View¹ Sales Databases created for Maryland's 23 counties and Baltimore City.

The Maryland Department of Planning (MDP) receives sales files from the State Department of Assessments and Taxation (DAT). The DAT files contain one complete year and are updated monthly (e.g. the March 2005 sales file contains sales with a trade date (TRADATE value YYYYMMDD) for March 10, 2004 - March 10, 2005). MDP initially assigns x,y mapping coordinates to the sales records based on the MdProperty View parcel x,y values at the time of the sales download.

To create calendar year Sales data with x,y mapping locations it is necessary to combine two separate Sales Databases. This also ensures that no records are missed since there is a lag for some jurisdiction in recording and updating their sales records:

1. CY2002 Sales data - the March 10, 2003 Sales Database is used to obtain the records for March 10, 2002 to December 31, 2002 and the December 10, 2002 Sales Database is used to extract the sales for January 1, 2002 to March 9, 2002.
2. CY2003 Sales data - the June 10, 2004 Sales Database is used to obtain the records for June 10, 2003 to December 31, 2003 and the December 10, 2003 Sales Database is used to obtain the sales for January 1, 2003 through June 9, 2003.
3. CY2004 Sales data - the March 10, 2005 Sales Database is used to obtain the records for March 10, 2004 to December 31, 2004 and the December 10, 2004 Sales Database is used to obtain the sales for January 1, 2004 through March 9, 2004.

B. Residential Sales Categories

Only residential (excludes agricultural residential) sales records are included in this analysis, i.e. sales records with a LU (Land Use) code of "R" (Residential), "TH" (Townhouse) or "U" (residential condominium).

The Residential Sales records are further grouped into Housing Unit (HU) types based on the Land Use (LU) and the Dwelling Description (DESCDWEL) fields in the Sales Database.

The residential sales Housing Types (HU_Type) are:

¹ *MdProperty View*, first developed by the Maryland Department of Planning (MDP) in 1996 and now in its twelfth edition, is an electronic, CD-ROM based GIS (Geographic Information System) tool for accessing information on Maryland's 2.2 million land parcels referenced spatially via x,y points to their location on property maps that can be viewed with other map layers such as State Highway Administration roads. For more information go to http://www.mdp.state.md.us/tax_mos.htm

Single Family (Hu = SF)

- Dwelling Description includes single family, split foyer or split level and LU = “R”

Townhouse (Hu = TH)

- Dwelling Description includes townhouse
- Dwelling Description includes townhouse and LU = “U”
- Dwelling Description is blank or no data and LU = “TH”

Condominium (Hu = CON)

- LU = “U” or LU = “R” and Dwelling Description includes condominium (garden, high-rise, penthouse, studio/efficiency) but Dwelling Description is not condominium townhouse

Mobile Home (Hu = MH)

- Dwelling Description is Mobile Home

Unclassified Residential (Hu = UNK and RENT)

- Dwelling Description is blank or no data and LU = “R”
Or Dwelling Description is a rental dwelling, almost exclusively Baltimore City

C. Sales Methodology Parameters

1. Conveyance Type - Only Sales Database records where the method of conveyance at the time of sale is an arms-length transfer of a single parcel (CONVEY1 field values of 1 or 2) are included.
2. Improvement Value – When the Sales Databases for CYs 2002 thru 2004 were originally created in the Spring of 2005, only Sales Database records were included where the improvement value was greater than \$10,000 (CURIMPVL field, current full market improvement value).

In order to make the Sales Databases for CYs 2002 thru 2004 consistent with the methodology used for CYs 2005 and 2006, the original sales records were reexamined in July 2007 to include sales where the CURIMPVL was less than \$10,000 but the sale improvement value, SALIMPVL, was \$10,000 or greater.

This assures the highest likelihood of capturing all property sales having a dwelling unit while excluding parcels where there is only land value with little or no improvement value.

A new field, IMPVALUE, is created and is populated with the value in CURIMPVL where that field has a value of \$10,000 or more, otherwise IMPVALUE is populated with the value in SALIMPVL of \$10,000 or more.

3. Improvement Versus Consideration Values - For some Sales Database records the improvement value (IMPVALUE field) is considerably higher than the consideration or amount of money paid for the property at the time of the sale (CONSIDR1). To address this issue the data are queried to identify those records where the improvement value

exceeds the consideration value by more than 1 ½ times. These properties are then deleted from the analysis. Thus the sales records retained are those where the consideration is two-thirds or more of the improvement value.

4. Removal of Duplicate Sales – There are some instances (less than 1%) where there are “duplicate” Sales Database records, i.e. multiple records with the same parcel account number (ACCTID), Trade Date (TRADATE) and Consideration Value (CONSIDR1). These records are examined to determine if they are “duplicates”. Upon review, most of the “duplicate” sales reflect instances of transfers involving financial institutions in combination with individual owner purchases or sales. The “duplicates” are removed from the Sales Database records.
5. CONSIDR1 Review – Sales Database records where the consideration is \$1 Million or more and the Improvement value (IMPVALUE) is 25% or less of the consideration value (CONSIDR1) are reviewed to determine if the sale is to an owner that is a “business entity”, e.g. LLC. These are likely to be properties purchased for redevelopment or a use other than residential sale and occupancy. For CYs 2002 thru CY2004, less than 100 such sales are identified and removed from the Sales Database records. Also, all sales where the CONSIDR1 is \$1 million or more and the improvement value (IMPVALUE) is 10% or less of the consideration value (CONSIDR1) are reviewed to determine if the consideration value is in fact correct. For these sales, the CONSIDR1 from the sales download database is compared to the current posting of the sales data on the DAT website. For CYs 2002 thru 2004, this results in corrections to the CONSIDR1 value for 26 records
6. Sales with x,y Location - At the time the initial Sales Database records are extracted they are assigned x,y mapping locations based on the currently available MdProperty View parcel x,y points. When the CYs 2002 thru 2004 Sales Databases were originally created (Spring of 2005) the MdProperty View datasets enabled x,ys to be assigned to 99.9% of the sales for CY2002, 99.7% for CY2003 and 98.7% for CY2004.

The additional records added to the sales database (as described in 1. above), as well as all the original Sales Database records, were given x,y location values based on MdProperty View as of July, 2007 (MdPV 2006 Edition for all jurisdictions but Anne Arundel, 2005 Edition).

Only the Sales Database records with x,y locations are used in the Sales analysis since these records are available for map display and analysis for small area geographic areas such as zipcodes, census tracts and block groups as well as areas in and out of PFAs (Smart Growth Priority Funding Areas).

7. Year Built - The year built (YEARBLT field) is originally determined based on the year built fields as provided in the Sales, CAMA or ADS databases at the time of the initial extraction of the Sale Database records. The primary source is the year built field in the Sales Database downloads. As part of the data improvements made in July 2007, the Year Built is given the value in MdPV2006 where the Year Built is not specified and is now populated in MdPV 2006.
8. Small Geographic Area Assignments - The Sales Database records with x,y locations for CYs 2002, 2003 and 2004 are tagged with small geographic area identifiers for purposes

of tabular analysis and map display. Specifically every sales record is assigned a jurisdiction identifier (23 counties and Baltimore City) and, where applicable, a municipality identifier based on fields that are in the Sales Database record. (Updated based on MdPV2006 for all jurisdictions except Anne Arundel, MdPV2005 in July 2007).

Each sales record is also assigned identifiers for USPS Zip Codes, 2000 Census Tract and 2000 Block Group (block groups are subsets of census tracts) in which it is located. MdProperty View contains boundary files (polygons map layers) for the three geographic areas. Using a spatial join the identifier for the Zip Code, Census Tract and Block Group are assigned to each sales record based on its x,y location and its intersection and with the respective polygon boundary file.

The geographic area identifier fields included on the calendar year sales record files are: COUNTY (positions 1-2 are the State Code, 24, and positions 3-5 are the jurisdiction FIPS code), DESC TOWN (Town Code Name preceded by a four character County abbreviation), ZIPCODE1 (5 digit USPS Zip code), ZIPCODE2 (5 digit USPS Zip code preceded by 5 digit County Code), ZIPNAME (Zip Code Description), CT2000 & BG2000 (2000 census tract and block group, the first 5 positions are the County code, positions 6-11 are the census tract and position 12 is the block group).

As part of the data improvements made in July 2007, the Sale Database record geographic area identifiers are updated based on MdPV2006, this includes the revised 2006 Zip Codes. Each sales record is also tagged with its PFA (Smart Growth Priority Funding Area) identifier based on the Priority Funding Area as of July 20, 2007. A sales record is either inside the PFA (inPFA), in a PFA Comment Area (inPFAc) or outside the PFA (outPFA).

9. Housing Type Assignment – In July 2007 the most recent edition year of MdProperty View (2006 Edition for all jurisdictions except Anne Arundel, 2005 Edition) was used to make further improvements in the original Housing Unit (HU) classifications.

The HU field is updated based on the MdPV 2006 property database records where there is both a Land Use (LU) and dwelling description (DESCDWEL). The final breakdown of the CY 2002 thru 2004 residential sales by housing unit type is:

	<u>CY2002</u>	<u>CY2003</u>	<u>CY2004</u>
Single Family (Hu = SF)	58,558	59,770	68,395
Townhouse (Hu = TH)	31,697	34,541	39,546
Condominium (Hu = CON)	10,220	10,636	11,505
Mobile Home (Hu = MH)	328	324	390
Unknown (Hu = UNK)	59	142	754
<u>Rent (Hu = Rent)</u>	<u>83</u>	<u>207</u>	<u>784</u>
TOTAL	100,945	105,620	121,374

Selected fields from the CY2002, CY2003 and CY2004 records are written out to the final sales database as shapefiles, R_sale02.shp, R_sale03.shp and R_sale04.shp, with the following field content:

The screenshot shows a window titled 'Identify Results' with a table of attribute data. The table has two columns: 'Shape' and 'Point'. The 'Shape' column contains the record ID '1: R_sale04 - 310270'. The 'Point' column contains the following values:

Shape	Point
Acctid	1303213935
Hu	TH
Tradate	20040929
Considr1	176000
Impvalue	98180
Yearblt	1987
County	24025
Descctown	HARF Bel Air
Zipcode1	21014
Zipcode2	02402521014
Zipname	Bel Air
Ct2000	24025303800
Bq2000	240253038005
PFA	inPFA

The residential sales records for a jurisdiction are included as shapefiles with the *MdProperty View* and the *FINDER* CDs for that jurisdiction. For example in Harford County for 2002, 2003, and 2004 sales

for *MdProperty*:

\\Harf2007\OVERLAYS\ResSale\Harf_sale2002.shp, Harf_sale2003.shp, Harf_sale2004.shp

and for *FINDER*:

\\Harf07F\LAYERS\ResSale\r_sale2002.shp, r_sale2003.shp, r_sale2004.shp

The sales database can also be used to generate map layers with summary data for residential sales by year for small geographic areas (e.g. for the State, 23 counties and Baltimore City, municipalities, zip codes, census tracts and block groups as well as areas in and out of Priority Funding Areas).

An example of such a shapefile and its attribute contents are shown below where the sales data is summarized and mapped by 2000 Census Tract. Separate shapefiles are included for all sales (HuType = TOT), Single Family sales (HuType = SF), Townhouse Sales (HuType = TH) and Condominium Sales (HuType = CON).

The attribute fields for each Census Tract (Ct2000) are the Number of Sales by year for the housing unit type (Sales2006 thru Sales2002), the Median \$ Value of Sales by year (Med_2006 thru Med_2003) and the Mean \$ Value of Sales by year (Mean_2006 thru Mean_2002). Medians and means are only calculated if there are 5 or more sales.

Field	Value
Shape	Polygon
Cntyname	Harford County
County	24025
Ct2000	24025303201
Htype	TOT
Sales2006	79
Sales2005	111
Sales2004	84
Sales2003	97
Sales2002	113
Med_2006	383215
Med_2005	360000
Med_2004	352750
Med_2003	322450
Med_2002	276400
Mean_2006	430950
Mean_2005	412286
Mean_2004	378854
Mean_2003	337249
Mean_2002	289367

The Statewide summary sales map layers for census tracts are included as shapefiles with the *MdProperty View* and the *FINDER* CDs. For example in Harford County

for *MdProperty*:

`\Harf2007\OVERLAYS\ResSale\Ct_Sales_Summary\`

and for *FINDER*:

`\Harf07F\LAYERS\ResSale\Ct_Sales_Summary\`