

**Field Appraisers Procedures Manual  
Comptroller of Public Accounts  
Property Tax Division**

**Introduction**

This manual details the procedures that the field staff of the Property Tax Assistance Division (PTAD) follow when conducting its property value study (PVS). Central appraisal district (CAD) personnel, taxpayers and other Comptroller staff may also find the manual helpful in better understanding the scope of our study. The manual will be updated as necessary.

Study procedures are based on:

Comptroller Rules

The International Association of Assessing Officers' (IAAO) *Standard on Ratio Studies*

Generally accepted appraisal techniques

The agency's own experience

The manual is an internal document written to and for PTAD field appraisers. The manual is designed to assist field appraisers in performing the tasks related to the local properties portion of the study and is not intended for any other purpose. The procedures presented are those used under normal circumstances. Deviations from these procedures should be cleared through management, and should have a logical basis in appraisal and/or ratio study theory. An overview of the PTAD's legislative mandate is provided including how the division carries out this mandate with respect to school districts and appraisal districts.

**Field Appraisers**

Field appraisers are the Comptroller's Property Tax Assistance Division staff in the Field Studies section assigned to various appraisal districts throughout the state. They are responsible for being familiar with the characteristics of the real estate markets within their respective districts. The primary responsibilities of the field appraisers are to obtain sample parcels of the kind and number assigned by PTAD headquarters staff and to perform certain kinds of analyses. The field appraiser must provide either a market sale price or an independent appraised market value for each sample parcel. They must also provide the appraisal district value and certain other appraisal district information for each sample parcel. The field appraiser must complete the PVS for his or her respective districts by December 31st of the study year. The preliminary PVS is published by the PTAD in January of the next year and the final PVS is made available by August 15.

**Property Value Study - School Districts**

PTAD develops sample estimates for designated categories of property. For categories that are not sampled, PTAD does not develop an estimate of value and accepts the local value reported by the district. PTAD adds these individual property category values to produce an overall estimate of "market value" for the district. Categories that are not tested are not included in the study. After conducting the study PTAD staff deducts allowable exemptions and reductions from the market value estimates to generate the "taxable value" estimate for the district. This school district taxable wealth estimate is sent to the Commissioner of Education. (Subchapter M, Secs. 403.301 - 403.304, of the Government Code contains definitions of "market value" and "taxable value.")

## **Property Categories**

Local properties, the focus of these procedures, consists of single-family residences, multifamily residences, vacant lots, rural acreage at market value, farm and ranch improvements, commercial real and personal property, mobile homes (on leased land) and real property inventory. Technical properties consist of rural acreage at productivity value, minerals and utilities. Intangible personal property, industrial real property, industrial personal property, and special inventory properties are not included in either group because staff does not study the level of appraisal of these kinds of properties. Category property value estimates are developed for the property value study in the following manner. First, in each school district, staff collects a sample of sales and/or appraisals in each of those local property categories that contain at least five percent of the total value of technical and local property categories in the school district or that contain at least \$250 million in value. Second, staff computes a ratio of appraisal district value to PTD value for each property in the sample. The appraisal district value is the value assigned to the property by the appraisal district. The PTAD value consists of either the sale price (adjusted when necessary) or the PTD staff appraisal. Third, staff computes a stratified weighted mean or weighted mean ratio from the sample's ratios. Fourth, this weighted mean ratio is divided into the total value reported for the category by the appraisal district to produce the PTAD estimate of value for the category. Again, this process applies only to sampled categories.

## **Property Value Study - Appraisal Districts**

Section 5.10 of the Property Tax Code requires the Comptroller to conduct a study in roughly half the appraisal districts each year to determine the median level of appraisal and the uniformity of appraisal for each major property category for each appraisal district in the state. The section also requires the Comptroller to use the data collected from the school district study for the appraisal district study.

Staff compiles five appraisal district performance measures: a median, a coefficient of dispersion, the percentage of sample parcels within 10 percent of the median, the percentage of sample parcels within 25 percent of the median and a price-related differential. The median provides an indication of the overall level of appraisal in a district. The coefficient of dispersion is a measure of appraisal uniformity, and shows how closely the sample ratios are clustered about the median. The price-related differential is a measure of differences in the appraisal of low-value and high-value properties.

The data used to compute these performance measures are the school district study data aggregated to the appraisal district level. For example, if there are three school districts in a particular appraisal district, the study data used to compute value estimates in these three school districts will be aggregated to the appraisal district. Performance measures are computed from these aggregated data.

Both the preliminary and final reports of PTAD's *School & Appraisal Districts' Property Value Study* contain these five performance measures and detailed definitions of the measures. These publications also contain explanations of the methodologies used by PTAD staff to develop the measures.

## **Chapter 1 - Preliminary Work for Annual Study**

### **Procedure 1: Field appraisers receive preliminary sample sizes for categories and/or category value strata from headquarters.**

PTAD headquarters staff generates suggested sample sizes (also called "parcel counts"). Preliminary sample sizes are assigned by category to obtain a specified overall margin of error for the school district and may change. Parcel counts for the new study year cannot be generated until all current study values

are locked into the PTAD computer system at the end of January, with February 15 being the target date for supplying updated parcel counts.

Directives to staff:

Parcel counts will be provided to you by PTAD headquarters staff. If accurate stratification data is available, stratified parcel counts will be generated.

Tasks:

- A. Headquarters staff generates sample sizes for each local property category that makes up at least 5 percent of school district value or contains at least \$250 million in value.
- B. If possible, these category sample sizes are generated by value strata within a category.
- C. The sample sizes are generated for each school district within a CAD. The minimum sample size per stratum is 10 (unless the stratum population is less than 10). If the parcel count is not stratified, the minimum sample size per category is 10. Should parcel counts fall below the minimums during the course of either the study or the appeals process, a ratio will still be calculated for strata or categories from the remaining observations.
- D. If there is an ISD within your region for which no parcel count is assigned, you should test at least 10 properties in one local property category.

**Procedure 2: Field appraisers determine and document an annual plan of completion for their region.**

Each field person analyzes the work load within their region, and develops an annual plan to submit to their supervisor. This plan will consider all interim and final production deadlines. Field staff will work one county at a time, completing all necessary tasks before moving on to their next assignment. Upon completion, a county is submitted to Austin and reviewed by a lead appraiser for completeness and accuracy.

Directives to staff:

Development and adherence to an annual calendar is required.

Tasks:

- 1. Using parcel counts provided by Austin, determine the order in which your counties will be worked, and estimate how long each county will take. Keep in mind the required interim production rates:

June 30	10% complete
July 31	20% complete
August 31	40% complete
September 30	60% complete
October 31	75% complete
November 30	90% complete
December 15	100% complete

A written plan will be submitted to your supervisor by the end of February of the study year.

2. Concentrate work efforts on one county at a time to completion. Although certain preliminary work may be necessary in the next county on your plan, your main efforts should focus on the primary county until it is complete.
3. Any significant deviation from your original plan should be discussed with your supervisor, and the plan revised in order to ensure timely completion of your region.
4. The sample will be reviewed prior to each deadline and any incomplete property entered in the FAS will be removed prior to calculating the completion percentage for the specific deadline.

## **Chapter 2 - Gathering Sales Data and Selecting Sold Properties for the Annual Study**

### **Procedure 2: Gather sales in assigned property categories.**

Gathering and analyzing available sales data is an important step for each property category. There is no sale price disclosure law in Texas. You must attempt to gather sales from a variety of sources including sales questionnaires (also referred to as "warranty deed letters"), appraisal districts, Realtors, title companies, financial institutions, commercial publications and multiple listing services.

#### Directives to staff:

- A.
  1. The standard sales date period is a twelve-month period from July 1 proceeding the study year through June 30 of the study year. To obtain the required sample size in categories or in strata with insufficient sales, the period may be extended as far back as May 1 proceeding the study year, and as far forward as August 31 of the study year. Extensions will occur in 1 month increments of both the beginning and ending period. You may extend the period in individual stratum as necessary.
  2. A different sales date period applies to property categories in appraisal districts where sold properties appear to be appraised at a different level from unsold or if the clustering of ratios around a defined point is statistically improbable. In this instance the time period runs from the date of certification through December 31 of the study year (termed "late sales"); except for sales with codes of W, O, or S (see below). Sales with W, O, or S codes may be used in appraisal districts whether they are in the time period determined under A. 1. above, or in the late sales time period. It is the field appraiser's responsibility to ascertain the correct timeframe for each of their school districts.
- B. Record a code for the source of each sale included in the study. Prescribed source codes for sales are as follows:  

C:	central appraisal district
W:	warranty deed letter (PTD)
O:	outside source, other than C or W
B:	C and O
Y:	C and W
S:	warranty deed and other
A:	CAD appeal
I:	ISD appeal
- C. If you can obtain sales from sources other than the CAD without using warranty deed letters, request supervisor approval *not* to use warranty deed letters. To maintain the independence of

the study, use of sales samples obtained solely from the CAD without an attempt to obtain outside source sales is prohibited.

- D. Capped Homestead Values – Use the market value BEFORE any “cap” when properties are capped. These are homesteads that have been appraised at a limited (capped) value because they increased in market value more than 10% per year.
- E. Properties in litigation – You may include in your sample properties that are in litigation at the local appraisal district for the study.

Tasks:

A. Generate warranty deed letters.

1. Obtain the sales submission files from the Intake and Analysis section. You will have to perform this function twice because there are two submissions. When the appraisal district is unable to provide transfer data, research the property transfer records (general warranty deeds) that are on file in the county clerk's office at each county courthouse.

Recommended fields are:

- a. ISD code
- b. CAD account number
- c. State category code (may be listed as SPTB code)
- d. Sale price
- e. Sale date
- f. Volume and page of deed
- g. Grantor
- h. Grantor address
- i. Grantee
- j. Grantee address
- k. Legal description
- l. Situs (physical address)
- m. CAD land value
- n. CAD improvement value
- o. Total CAD value

Recommended sort would be:

- a. By ISD
  - b. By State category code
2. When data is gathered from courthouse records, keypunch into the Excel warranty deed data file the name of the grantor and grantee, the grantee mailing address, legal description of the property, volume and page number of deed, and deed date. You can use the comments field to enter school district codes or other information relating to the transaction. There is also an account number field if you are able to obtain a file that lists account numbers.
  3. Save the information to a file and email the file to your lead appraiser for review before sending to Austin for processing.
  4. Headquarters staff will print warranty deed letters and mail the letters to the grantees.
  5. Responses to warranty deed letters are received at headquarters and mailed back to the appropriate field appraiser.
  6. No follow-ups are necessary to non-respondents to warranty deed letters.

- B. Obtain all the sales the appraisal district has in its possession for relevant time frames and categories from the Intake and Analysis Section. You will need to complete this function twice because there are two submissions. If the appraisal district did not provide a sales submission file, request all the sales the appraisal district has in its possession for the relevant time frame.

Appraisal districts should provide all data on electronic media. You may use a "Request for Sales Data" form (Appendix 1) to insure that the data will be compatible with PTD computer equipment.

Data fields recommended to be included from the CAD in the sales data are:

1. ISD code
2. CAD account number
3. State category code (may be listed as SPTB code)
4. Sale price
5. Sale date
6. Volume and page of deed
7. Legal description
8. Situs (physical address)
9. CAD land value
10. CAD improvement value
11. Total CAD value
12. Comments
13. Square footage of main improvement
14. Age of building
15. Condition of building
16. Building class
17. Subdivision code
18. Map number
19. Lot size
20. Sale confirmation/verification code (arm's length, foreclosure, HUD, estate sale)
21. Grantor
22. Grantee
23. Sale Source Code
24. Finance code (FHA, VA, conventional, assumption)

Recommended sort would be:

1. By ISD.
2. By State category code
3. By total CAD value

- C. Research and gather sales from other sources, as available.

Other potential sources of sales are multiple listing services, financial institutions, Realtors, brokers, fee appraisers, and title companies.

### **Selecting a Sales Sample**

If there are enough sales, your entire sample will consist of sales. If there are not enough sales after expanding the time frame, use all market sales and supplement your sample with appraisals.

When selecting sales to be included in the study, outside source sales (those not available to the appraisal district at the time values were set) are used first. If sample requirements are not met, you will

add sales for which you have a letter returned to you from the buyer. Where sample requirements are not met, sales are then randomly selected from those sales which the appraisal district did have. You will draw a random selection from the first sales submission and draw a second random selection from the second sales submission. You must be sure the sales population in the second submission from which you make your selection does not include sales that were in the first submission. If you start work on a county after the second submission, a single random selection from the second submission, or a combined file of both, is all that is necessary.

Random selection, or random sampling, involves selecting properties using random numbers. When selecting a sample, PTAD staff must use random selection procedures in all categories if at all possible. In the rare circumstance where random selection is not possible, judgmental sampling will be performed. Judgmental sampling, or non-probability sampling, is a method whereby the sampler selects a certain number of properties that reflect characteristics of a population. Judgmental sampling is used only in unique situations, and should only be used with prior supervisory approval.

Value stratification helps ensure that the sample represents the population of properties in the category. A representative sample is "a sample of observations from a larger population of observations, such that statistics calculated from the sample can be expected to represent the characteristics of the population being studied" (Definitions, IAAO Standard on Ratio Studies, page 43). All properties in a sample need not be "typical" for the sample to be representative. Rather, a representative sample is composed of individual properties that collectively reflect the characteristics of the population from which they were drawn. It is appropriate to use any property drawn from the population as a part of the sample because each property in the population, regardless of how unusual that property may be, represents some characteristic of the population.

In order to ensure that correct procedures in selecting samples to be included in the study are followed, detailed guidelines for completing this procedure are given in Appendix 2.

**Procedure 3: Select sale properties using appropriate sampling techniques for each category and/or value stratum.**

Directives to staff:

- A. Use proper sampling techniques to obtain sample requirements in each district within your region.
- B. If you use random selection, keep the list of random numbers and properties used for parcel selection, or the database files and criteria. Depending on sample statistics, you may need to add observations. In order for the sample to remain random, the additional observation would need to come from the original list. Within the sales that have been randomly selected, you may not arbitrarily omit sales. All randomly selected sales that are suspect must be investigated. Any omissions should be documented as to why the sale was deleted.

Tasks:

NOTE: In cases where your sales population in the standard time frame exceeds the parcel count by more than 50 per stratum, the random sampling procedure should be performed. However, random sampling is not necessary in a stratum if your sales population contains 1 to 50 more sales than the parcel count. In this case you may include all of the sales to meet the category or stratum parcel count. For example, if you need to randomly select 40 parcels, but the population of sales consists of 90 parcels, then all 90 parcels may be used, thus eliminating the need to randomly select.

If you need to randomly select 40 parcels, but the population of sales in the stratum consists of 500 parcels, it would be appropriate to randomly select up to 50 more (or 90) in that stratum. Keep in mind that 40 percent of the sales in your sample must be verified. Larger samples can be approved by your supervisor where appropriate.

#### **Procedure 4: Confirm and verify sales and exclude non-market sales.**

A sale is "confirmed" when you have documentation necessary to ensure that the correct sale price is used in the study. A sale is "verified" when you have documentation necessary to ensure that a sale meets the Texas Property Tax Code's definition of a market value transaction.

The legal requirement for sales verification is that 20% of the sample is verified from a source other than the appraisal district; Comptroller Rule 9.101. However, this internal procedure requires field appraisers to confirm and verify at least 40% of their sales in each category tested. Data required will vary according to type of sale. For instance, to verify an owner-financed sale, the appraiser is expected to obtain the financing terms on the sale. To determine whether sufficient information is available to verify a sale, consider the definition of market value:

"Market value" means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- (A) exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- (B) both the seller and the purchaser know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use; and
- (C) both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Texas Property Tax Code, Section 1.04 (7)

#### Directives to staff:

- A. Any one of the following items will provide some level of confirmation and verification. The field appraiser must determine when sufficient data is available.
  - 1. Closing statement or documented notes from a closing statement.
  - 2. A warranty deed or sales verification letter signed by the grantor or grantee.
  - 3. A copy of the page in a fee appraisal showing that the sale was used as a comparable as long as it includes all relevant information about the property and the transaction terms.
  - 4. A signed affidavit that oral confirmation was received from one of the parties to the transaction along with a copy of the recording instrument. Include the phone number of the person contacted.
  - 5. A confirmation through a Multiple Listing Service or other comparable reporting service. If a copy of the data taken from the publication is not obtained, you must provide notes indicating you have observed the document. Include other information available from the publication (i.e., list price, days on market, method of financing, etc.).
  - 6. A copy of the recording instrument showing full consideration, or a copy of the recording instrument showing grantor, grantee, the amount of down payment and the length and terms of the note, including the note amount.
- B. Only market transactions may be included in the study. Section A.4.1 of the IAAO *Standard on Ratio Studies* lists the kinds of sales that are generally invalid for ratio studies but may be included in a ratio study if the sale price represents market value.

1. Owner financed sales. Determine the facts surrounding the sale. Establish a comparison of terms and rates for owner-financed and conventionally-financed sales. Determine the need for any adjustment to the sale price by direct market comparison, or other means. If financing terms are comparable to market rates, you may use the sale without adjustment. If the financing terms are unknown, but market comparison indicates the transaction is valid, you may use the sale.
2. Estate sales. Estate sales are valid for use in a ratio study unless the property is sold without regard to its market value. If this occurs, the property will sell for less than market value, typically resulting in a ratio greater than 1.00. If a property appears to be an estate sale, and has a ratio greater than 1.00, you may not include it in the study unless you determine the sale price represents market value. If the ratio for the property is less than 1.00 you may include it in the study unless you have compelling market evidence the sale price does not represent market value. If you have compelling evidence the sale price is not market value, you should adjust the price to a market price before using the sale in the study.
3. Foreclosure sales. Sales of foreclosed properties do not meet the definition of market value. You should not include foreclosure transactions in the study unless you have compelling market evidence the sale price represents market value. In order to consider whether to use sales of foreclosed properties, you should segregate sales identified as foreclosures into a file and compare the average, and weighted average sale price per square foot of foreclosed properties to the average and weighted average sale price per square foot of non-foreclosed properties. If there is a difference between the prices you may not include sales of foreclosed properties in your sample.
4. Number of days on the market. A short marketing period may mean there are a number of interested buyers for this property, or it may be an indication that the property was listed for less than market value. If your documentation indicates a property was on the market for a very short period (1-7 days), and the ratio is greater than 1.00, this indicates the property may have sold for less than market value and you may not use the sale in your sample unless you can document that the short period is typical for the specific market and the sale price represents market value. If the ratio is less than 1.00, you may use the sale unless you have compelling market evidence the sale is not an arm's-length transaction. If MLS information indicates one or two days on the market, keep in mind that the property may have been offered for a period of time through another agent (thus previously listed on MLS) or through some other source.
5. Assemblage. As defined in Appraising Real Property, Lexington Books: Society of Real Estate Appraisers, 1984, p 218. "Assemblage is the additional cost required to bring two or more smaller lots into common ownership or use." In other words, the buyer would have had to pay more than market value (the additional cost required) for the second lot for assemblage to be a factor. If there is no evidence that the buyer incurred any additional cost to purchase the second property, find and document comparable properties to defend the sale price as market.
6. ARB adjusted properties. Properties with values adjusted by the ARB are a part of the population and, in order for the sample to be representative, should be included. However, 403.302(b)(4), Gov't Code, requires that different levels of appraisal resulting from protests determined under Tax Code Section 41.43 should be considered and appropriate adjustments made. In order to determine whether differing levels of appraisal exist, you should compare the appraised values of ARB adjusted properties to the appraised values of non-ARB properties. If there is no significant difference, no adjustment is required. If an adjustment is required in the study, contact your supervisor for stratification procedures. Those stratification procedures will comport with the concept of proportional representation of the value of ARB adjusted properties to the value of the population. Staff may consider some other form of adjustment if the district supplies data required by PTAD that is in a layout and media defined by PTAD at the time a protest petition is filed. The data

file must be compatible with PTAD systems, and failure to produce the data appropriately will result in no adjustments of value because of ARB determinations.

- C. A sale must be excluded from the sample if the property characteristics have changed significantly between the date of sale and the assessment date. Standard or expected maintenance does not constitute a change in a property's characteristics.
- D. Supplemented values. Appraisal districts supplement local values for a variety of reasons. However, if the local value on any property included in the sample is supplemented after the appraisal district became aware that the property is included in the sample, you must use the certified value for the property that existed prior to the supplement. You should record the date you deliver the clerical error report, or any date prior to that for which the district makes a request for information included in the current study. Your recorded date of delivery will be considered the date the district was aware of the properties included in the sample.

Tasks:

- A. You must confirm and verify at least 40% of the sales in your sample. In addition, all sales identified as outliers must be confirmed (see Chapter 4, Procedure 9.)
- B. Use the Excel sales verification data file to prepare letters to verify CAD sales that cannot be verified through other means. Enter the county, region, grantee name and address, legal description, account number, and sale price. The sale verification letter lets the grantee know that we have the sale date and sale price. It asks the grantee to provide information necessary to verify the sale as a market transaction.

**Procedure 5: Adjust sale prices.**

Generally, if necessary, a sale price of a valid market transaction can be adjusted to reflect the market value of the property as of January 1 of the study year. You can adjust sales that are a combination of real and personal property, sales that include more than one category of property, sales with unusual financing and sales in markets that show significant value changes during the study time frame.

Directives to staff:

Section A.5 of the *IAAO Standard on Ratio Studies* discusses adjustments to sales prices. Adjustments to sales prices must be made from market data because any component that adds, or removes, value to the property will be represented in the sale prices of properties in competing markets. You must retain documentation for your adjustments.

Tasks:

- A. Adjust sale prices for personal property only if the personal property caused the sale price to be higher than it would have been without the personal property. Sales prices should be adjusted by subtracting the contributory value of personal property received by the buyer, based on evidence of the effect of personal property on the sale price. If a portion of the sale price is designated as being for personal property and if that amount appears reasonable and can be supported by other market data, it should be deducted from the sale price. When evidence of the value of personal property is not provided, no adjustment is necessary. The value of any personal property must be significant, as defined by the *IAAO Standard on Ratio Studies* in order to qualify for an adjustment.
  - 1. Identify and estimate the value of personal property using one of the following methods:

- a. a signed statement or warranty deed letter from the buyer indicating that personal property transferred in the sale, that the buyer paid more because of the personal property items, and how much more the buyer paid. An estimate of value from the buyer, agent or appraisal district is insufficient unless it is accompanied by market data that supports the estimate.
  - b. obtain data from a rendition, tax return or other reliable source in order to trend and depreciate using the PTD computer program.
  - c. market data comparison with properties that sold without the inclusion of personal property.
2. Subtract the value of the personal property from the sale price.
3. If appraisal of the personal property is not practical and if the value appears to be small or typical in comparison to the total price, you may use the sale without adjustment.
- B. If the Local Value Analysis Section is unable to correct coding problems for specific properties and is not able to adjust category and stratum totals, you should adjust sale prices to account for more than one category of property included in the sale (i.e., a residence and lot (Category A) and a vacant lot (Category C). The following procedure will be used.
  1. Calculate a ratio by dividing the CAD value of all categories included in the sale by the sale price.
  2. Divide the CAD value of the vacant lot by the overall ratio for the property. The resulting value is the portion of the sale price attributable to the vacant lot.
  3. Calculate the percent of the sale price attributable to the second category. Include the apportioned amounts in your sample for both categories, if tested.
  4. Example: A property sold for \$110,000. The sale included a Category A property which the CAD valued at \$80,000, and a Category C property which the CAD valued at \$10,000.
 

Step 1:	$\$80,000 + \$10,000 = \$90,000$	Total CAD Value
Step 2:	$\$90,000/\$110,000 = .82$	Ratio for entire sale
Step 3:	$\$10,000/.82 = \$12,195$	Portion of sale price attributable to Category C
Step 4:	$\$110,000 - \$12,195 = \$97,805$	Adjusted sale price for Category A.
- C. Adjust sale prices when the seller and lender are the same party and financing is not at prevailing market rates. You may use the cash equivalency Excel spreadsheets to calculate adjustments, or market comparisons can be developed.
  1. Adjust sale prices downward when the contract interest rate is lower than prevailing market rates for comparable transactions and adjust sales prices upward when the contract interest rate is higher than rates for comparable transactions.
  2. The amount of the adjustment can be found by capitalizing the difference between the monthly payments based on the prevailing market rate and those based on the contract rate. Refer to Appendix 5-1 of the IAAO *Property Appraisal and Assessment Administration* text.
- D. Adjust sale prices downward by the value of any points paid by the seller.
  1. Adjustments should be calculated on the loan amount, not the total sale price.

2. If your documentation clearly indicates that the seller paid points, but you do not know the amount of down payment, use 5% as a standard down payment and adjust the sale price accordingly.
- E. Adjust sale prices upward by the amount of any payment made by the buyer for real estate commissions and delinquent property taxes.
- F. Adjust sale prices when the buyer assumes an existing lease at a non-market rate. Refer to Appendix 5-1 of *IAAO Property Appraisal and Assessment Administration*.
1. If the contract rent exceeds market rent, subtract the present worth of the difference between the two rent streams from the sale price.
  2. If the contract rent is less than market rent, add the present worth of the difference between the two rent streams to the sale prices.
- G. Adjust sales prices for time if necessary. Using a balanced timeframe reduces the importance of time adjustments (IAAO Standard on Ratio Studies, 4.1, page 25).
1. Four types of market analysis may be performed: a) sales analysis, b) documented discussions with local economists, realtors and appraisers, c) copies of third-party opinions and analysis from publications (newspaper articles, economic journals, newsletters, university reports etc.), and d) inverse ratio trend analysis. When insufficient information is unavailable to conduct a particular analysis, that analysis may be omitted.
    - a) The field appraiser gathers all the available sales each year, screens the sales to exclude non-market transactions, and gathers detailed property characteristic information on each sale. The property characteristics should include all the items shown in Appendix 9, if available. Other important characteristics are indicated in the sales layout format. This data is then analyzed using trend line analysis.
    - b) Discussions with local economists, realtors and appraisers should center on the question of whether real estate prices are increasing or decreasing, and, if so, how much. Do not ask whether they use time adjustments in their appraisals. They may have legitimate reasons for not using time adjustments even when they know they exist. For instance, they may have plenty of sales occurring on or near their appraisal date. Document the discussions by making notes that show the date, name and occupation of the person and details of the discussion.
    - c) Published third party analysis and opinion may be very useful as a back-up to other types of analysis. Copies of these documents should be dated and filed.
    - d) Array the sales by date, calculate the inverse ratio for each and plot the results on a chart. Insert a trend line and consider the results of this analysis in relation to the other market data.
  2. Time adjustments must be developed at the level of stratification where they are applied. For example, a time adjustment developed for a property category in a school district should represent the *weighted average* annual change in market value for the entire property category. Similarly, a time adjustment developed for a value stratum should represent the weighted average annual change in market value for the entire value stratum.
  3. Each field appraiser (in consultation with his or her supervisor) is responsible for assigning and defending time adjustments, or documenting and defending why they are not assigned. The selected time adjustment will normally be within the range of time adjustments indicated by the three types of analysis discussed above.

- H. Adjust for Seller Concessions when necessary. FNMA and VA guidelines require adjustments to comparables for sales concessions that may affect the sale price. Both require the adjustment if the concessions are not typical for the market. If the concessions are typical for the market, required by law, or are a result of tradition, no adjustment is necessary. If an adjustment is necessary, both FNMA and VA prohibit a dollar for dollar adjustment. Instead, both require that the amount of any adjustment should generally be based upon the real estate market reaction to the concession. If the concession has no impact on the sales price, as measured through the market, no adjustment is necessary, even if the concession is not typical for the market.
1. Field Appraisers should determine if the sales concession is typical for the market. Concessions that occur in nearly every transaction would be considered typical.
  2. If the concession is not typical for the market, the appraiser should compare the property to other sold properties to determine if the concession had any effect on the sale price. If no effect can be measured, no adjustment is required.
  3. If the concession is for something that is voluntary and neither party is required to pay, such as a home warranty program, no adjustment should be made.
  4. Broker's commissions are never deducted as a concession. If, however, the buyer pays the broker's commission, the amount of the payment should be added to the sale price.
  5. If the buyer pays delinquent property taxes, the amount of the payment should be added to the sale price.
- I. Combining parcels.

When a sale includes multiple parcels in the same category, the parcels can be combined into a single transaction with a single sale price unless the CAD value that results from the combination moves the sale to a different stratum, in which case you will not combine the parcels.

### **Chapter 3 - Selecting and Appraising Properties**

#### **Procedure 6: Select properties to appraise.**

Select properties to appraise when sales are not sufficient to meet the required sample sizes. When selecting properties to appraise, you must always use random selection procedures if all requirements for random sampling can be met. Random sampling is always preferable to judgmental sampling.

If appraisal roll data is available, PTD headquarters will provide lists of randomly-selected property accounts by category and value stratum for each school district. If appraisal roll data is not available, you should ask the CAD for a list of all accounts in the category, sorted by value. The request would be for an excel spreadsheet, to include the following four fields "ISD number, Account number, CAD total value, and category."

#### Directives to staff:

- A. If PTD headquarters provides a list of randomly-selected properties, verify that CAD values are accurate. Properties are selected from the previous year's appraisal roll, and values may have changed, possibly moving a property from one value stratum to another. If the property moves to another stratum, you may skip it.
- B. You must never exclude a randomly-selected property simply because it may be unusual. A representative sample is composed of individual properties that collectively reflect the characteristics of the population from which they were drawn. Any property that is part of the

population is a component of the population and its characteristics are a part of the characteristics of the population.

- C. If you do not have a schedule for a randomly-selected property but can obtain sufficient data and the appraisal will not require an inordinate amount of time, then the property should be appraised for inclusion in the sample.
- D. If you encounter a randomly-selected property that will require an inordinate amount of time and/or resources to appraise, contact supervisory staff. Options for handling these properties include:
  - 1. Assistance from in-house staff or more experienced field appraisers.
  - 2. Omission of the property from the sample and appraisal of the next randomly- selected property.
- E. If you randomly select an account and discover that the entire property includes more than one account in the same category (i.e., a six-building apartment complex has individual account numbers and value assigned to each building and you randomly select one of the buildings), you should:
  - 1. Consult your supervisor to determine whether the randomly-selected account can be accurately appraised as a single property. If so, appraise the single account for inclusion in the sample.
  - 2. If the randomly-selected account cannot be accurately appraised as a single property, calculate the CAD value of all accounts included in the property. If the total CAD value does not move the property to another value stratum, appraise the entire property.
  - 3. If the total CAD value of all accounts moves the property to another value stratum, you may skip the account.
- F. If you randomly select an undivided interest account, you should exclude this property from the study.
- G. If you randomly select an account that includes more than one category, you may skip the account.

#### Tasks:

- A. Randomly select appraisal properties if possible.
- B. Judgmentally select appraisal properties if necessary. Always consult your supervisor when using judgmental sampling. This method of sampling will be necessary in districts where lists of parcels for each category cannot be provided by the CAD.
  - 1. In deciding what properties to select judgmentally, you must consider all meaningful population characteristics.
  - 2. To the greatest extent possible, you must ensure that the sample represents the population characteristics in proportion to their representation in the population of properties under consideration.
  - 3. It is critical that you develop a good working knowledge of the population characteristics of the area where you are working. It is also critical that you collect all available data regarding

property characteristics and regularly visit with members of the real estate community and anyone else who might have any knowledge of real estate activity in the area.

### **Procedure 7: Perform appraisals.**

#### Directives to staff:

- A. All property included in a CAD property account must be included in the PTD staff appraisal, including multiple improvements, paving, outbuildings, and signs. You must include any property that existed on January 1 of the study year whether the CAD has that property as a part of its value or not.
- B. Staff appraisals must be independent of the CAD appraisals. To ensure independence, you must appraise the property without referring to the CAD's value on the property. You must not make any adjustments to the appraisal based on the CAD's value. This independence includes land values. The field appraiser should develop independent land values on each account.
- C. You must physically inspect each improved property to be appraised. A photo should be taken, and the photo attached to the appraisal record in the Field Appraisal System.
- D. If an improved property is inaccessible, you must document this and not use the property in the sample.
- E. If physical inspection of an unimproved property is judged to be unnecessary, appraisal cards, aerial photographs, soil maps and other relevant information can be used to perform the appraisal.
- F. An appraisal must reflect a property's market value as of January 1 of the study year. Appraisers must use the Comptroller's Field Appraiser System to classify and appraise sample property unless better information is available or that kind of property is not included in the Field Appraiser System.

#### Tasks:

- A. Appraise Category A sample (single-family residences) and Category E sample (farm and ranch improvements.)
  1. Inspect and photograph every property to be appraised.
  2. At each property, record property class, construction type, condition, age, amenities, and any outbuildings or other additives such as pools. Take notes about property specifics such as neighborhood influences and restrictions. It is important to check the CAD record as you inspect the property to determine that the square footage is reasonable. If it is obvious that there is an error on the CAD record, you may have to measure or estimate improvements to obtain an accurate square footage.
  3. Along with the properties to be entered as appraisals, staff will also select, appraise, and photograph sold properties, which will enable the development of a local modifier. A local modifier adjusts the Marshall Valuation Costs to account for local markets. Sales from comparable areas outside the school district may be used. The Field Appraiser will inspect the sales and appraisals, at the same time.

4. Develop land values. There are several methods of developing land values: building schedules, using comparative sales analysis, or using the land residual technique. Upon completion of the CAD, the land schedule will be sent in to the Lead Appraiser.
5. Develop a local modifier for each property appraised.
  - a. Enter the sold properties you have appraised into the Field Appraiser System, including both sale and appraisal details. Flag each account to be used in the development of the local modifier.
  - b. The final selection of an appropriate modifier for each property requires appraiser judgment, and knowledge of the area. The modifier selected will be applied to those accounts selected for appraisals. Each appraisal will have its own, unique, modifier developed from the most appropriate market data available. The field appraiser is responsible for identifying the specific properties used to develop each local modifier for each property appraised. A digital photograph of each sale used for the local modifier calculation will be attached to the appraisal.
6. Enter the random appraisals in the FAS and identify the sold properties used to develop the modifier for the property. A digital photograph will be attached to each appraisal in FAS.
7. If the value of the septic is not included in the land value, and a septic system exists, include it with the construction costs.

B. Appraise Category C sample (vacant land) and Category D sample (rural acreage at market value.)

1. Collect sales data for comparable tracts. Since separate parcel counts are not assigned for categories D and E you are responsible for making sure that each category's sample represents the correct proportion of value for each.
2. Build land schedules based on these sales data and other market data as available.
3. Determine adjustments to land schedules for factors that affect value, such as, size, location, availability of utilities, water, waste water, septic and use.
4. Alternatives to creating land schedules are using comparative sales analysis or the land residual technique.

C. Appraise Category B sample (multifamily residences) and Category F.

1. Physically inspect the property.
2. Gather income data if available and appraise the property using the income approach. The direct capitalization method can be employed in a stable market or a discounted cash flow (DCF) analysis can be used in a changing market environment.

When using a DCF analysis:

- a. Determine the holding period (typically 7 or 10 years) using market data available from brokers, fee appraisers and investors.
- b. Establish the market based assumptions (income, vacancies, expenses, stabilized vacancy, expense and income increase / decrease per year).

- c. Determine the appropriate capitalization rate and discount rate. The cap rate can be sales based or a built-up rate based on market financial data. The discount rate can be taken from investor surveys or built from your knowledge of investor yields.
- d. Determine the appropriate reversionary capitalization rate based on the market and the appropriate sales expense rate based on market data.
- e. Run the DCF and estimate the value.

When using the direct capitalization method:

- a. Estimate the stabilized net operating income (NOI) from market data for the subject.
  - b. Determine the appropriate capitalization rate. Sales of properties that have market rents yield market capitalization rates.
  - c. Divide the cap rate into the NOI to determine the value.
3. If income data is not available, appraise the property using the Marshall & Swift commercial cost estimator. With the cost approach, supportable commercial land values must also be developed. If necessary, develop property-specific external or functional adjustments. Cost schedules do not take into account external or functional factors that affect the value of an individual property. When the value of a property is reduced by outside influences (external obsolescence) or by design problems (functional obsolescence), an external or functional adjustment must be estimated and used to make the reduction if the value can be quantified. When appraising commercial properties, ask the property owner for income information such as vacancies and rent and use these as comparisons to estimated market rents which you can use to estimate an external adjustment. If enough recent and verifiable sales information is available, the sales comparison approach may be the most appropriate approach to value. Remember that both external and functional obsolescence have to be identified as arising from a specific cause and any adjustment has to be quantified from market data. If the obsolescence can't be quantified, it has no value and no adjustment should be made.

D. Appraise Category L sample (commercial personal property.)

- 1. Randomly select the accounts to be included in the sample. Request from the CAD all available data on each account. This should include the CAD record of the account, as well as any owner information, in particular the last available rendition. Prior year renditions may also be examined if available for relevant data. If a Special Inventory account is selected, skip the account.
- 2. Review the data on each account. Determine whether the rendition data is timely and appears reliable. It is appropriate to accept the value of inventory and supplies as stated on a signed rendition, unless the information is obviously unreliable. If the cost on the rendition is the actual acquisition cost and not retail, it would be inappropriate to allow an obsolescence factor for this cost unless the business identifies the tax advantage gained from the loss, if any, so that can be added back. If a rendition includes acquisition costs and dates for each asset, enter this data into the trend and depreciate program to develop an appraised value for the assets. Depreciating FF&E must be based on actual age or acquisition date. To determine the age, you must choose one of five courses of action.
  - a. Use owner information if you determine it accurately describes the equipment on-site on the basis of a site inspection.

- b. Use the age estimated by the CAD if you determine it is accurate and owner information is not available or reliable.
  - c. Develop staff estimate based on an inspection and any information obtained.
  - d. In cases where there are several pieces of equipment and owner information is not available, or is not reliable, estimate the average age of the equipment based on an inspection and any information obtained.
  - e. Whenever an age estimate is developed, document the basis for the estimate. Do not base the estimate on the condition, unless the condition renders the equipment useless or restricts the equipment's operation. In this case, describe the problem and why additional depreciation is warranted. In cases where the condition of the FF&E is not what is expected for its age because of excessive wear and tear, you must use your own judgment and allow for additional depreciation, if necessary.
3. If there is no rendition, or if the information in the rendition is incomplete or appears unreliable, you may send a Personal Property letter to the owner of the business. Allow a reasonable length of time for a response from the business owner. A follow up call may be appropriate. If information is received, enter the data into the Trend and Depreciate program and proceed as above.
  4. If no response is received, or if the data appears unreliable, physically inspect the property and interview business personnel. If, at this time, you receive reliable owner information, use it.
  5. If you cannot obtain owner information, but a PTD schedule is available, use the schedule to develop an appraised value for the property. Determine quantity, quality, density, condition and age of inventory and FF&E.
  6. If none of the above methods are viable, discuss with your supervisor the options available. The property may have to be omitted from the sample.
  7. Special Issues.
    - a. Valuing Vehicles. If original cost is known, you can use the trend and depreciate program. If specific information is available for a particular vehicle, commercial estimators such as NADA or Edmundson's can be used. In NADA, use the loan value, if Edmundson's, use the True Market Value (TMV).
- E. Appraise mobile homes. These may be in either category A, E, or M (mobile homes on leased land) where the particular category is being tested.
1. Inspect the subject mobile home.
  2. Determine age, make, model and manufacturer.
  3. Determine quality and condition.
  4. Determine value of the mobile home based on market data or information from a commercial service, *or by using the Marshall-Swift cost estimator.*

**Procedure 8: Obtain CAD information for each sale property and each appraisal property in the sample.**

Directives to staff:

- A. For each sale and appraisal in the sample you must provide the following information, when applicable:
1. CAD ID code
  2. ISD ID code
  3. Category code
  4. Account number
  5. Legal description
  6. Parcel address
  7. Sale/appraisal code
  8. Sale date
  9. Sale price
  10. Source code
  11. CAD improvement value
  12. CAD land value
  13. Furniture, Fixtures and Equipment (FF&E) value
  14. Inventory value

This information may be available electronically as part of the appraisal roll submission project. Some of the above information may not be available, but you must make a reasonable effort to obtain all information possible.

Tasks:

- A. Request necessary information from CAD. This may be in the form of CAD appraisal cards or other printouts of information or documentation indicating certified values of properties.
- B. If a sample property is classified in the wrong property category, you should bring it to the attention of the CAD, but should leave the property in the CAD-designated category. If coding errors are widespread, complete the "Misclassified Property Form" (Appendix 4) and send to the PTD's Local Value Analysis Section. You may not remove a property from the category, or sample, because of a coding error. When the CAD reports a property in a category, it becomes a part of the characteristics of that category and if selected, should be used to test the category value. However, in cases where the district misclassifies a portion of a property that has sold, the Local Value Analysis section may be able to correct the error so the sales can be used without allocating the components.
- C. You must make a final review of information gathered and obtain any missing items of information from the CAD.

**Chapter 4 - Completing Field Work/Finalizing Study Data**

**Procedure 9: Run final reports and complete CAD review.**

Upon completion of a county, the field appraiser runs a series of reports and completes the CAD review form (Appendix 8). The reports to be run include the following:

1. Management Summary – Percent Complete strata parcels
2. Total Summary
3. PVS Detail Summary (only run this for appraisals)
4. Local Modifier Summary
5. Your local modifier analyses
6. Duplicate Accounts – should be run by ISD
7. Sale date range summary
8. Source code summary
9. Outlier report

#### 10. Clerical Error report – Category D only

The data on these nine reports will allow completion of the CAD review. Any results that are outside the required parameters should be corrected before submission of the CAD review. Once all results are within prescribed parameters, submit the CAD review to the lead and supervisor. A county is not complete until the reports are delivered to your supervisor. Only the outlier report must be printed (see procedure 10). The other reports may be viewed on the screen.

#### **Procedure 10: Retain a copy of the original outlier test on the completed sample.**

An outlier is an unusually high or low ratio. Outliers may be the result of data errors, appraisal district errors or market variability. A data error can be a clerical error (such as a keypunch error), a mismatch between the property in a PTD sample and the property the CAD appraised, the inclusion of an appraisal in which PTD staff made a procedural or judgmental error, or the inclusion of a non-market sale. Appraisal district errors include any error by an appraisal district that results in an appraised value substantially different from market value. Market variability may cause an unusually high or low ratio in the absence of a data error or an appraisal district error.

#### Directives to staff:

- A. If the outlier was caused by an appraisal district error, leave the parcel in the study.
- B. Outliers caused by unusual market variability should remain in the study.
- C. Outliers may not be removed from the study unless the outlier ratio is the result of a non-market transaction.

#### Tasks:

- A. After data is entered into the Field Appraiser System and the sample is complete, run an outlier report. Outliers should be calculated using 2 standard deviations.
- B. Confirm and verify all outliers identified by the report and document why the sample parcels were either left in the study or excluded.
- C. If the outlier was caused by a data error, correct the error if possible. In the case of a clerical error, a property mismatch or an error in appraisal judgment, correct the error and leave the sample parcel in the study. In the case of a non-market sale, exclude the sale.

#### **Procedure 11: Complete CAD Comments**

#### Directive to staff:

Complete CAD comments on each district. Comments must be entered into a Word document, and should contain pertinent data concerning the district. See Appendix 6 for an example of this report.

#### Task:

Use the WORD document to describe the following items:

- 1. Sales time frames - for each ISD, for each category, for each stratum.
- 2. Sample selection - for each ISD, for each category, for each stratum.

3. Other relevant market information.

### **Procedure 12: Generate and deliver a clerical error report to CAD**

Clerical error report data must be generated and delivered to the CAD once a county is complete.

#### Directive to staff:

In many cases, the appraisal district value for a property in the PTD sample will change from the time it is collected by you to the time it is certified by the appraisal district's Appraisal Review Board in mid-summer to fall. To ensure that the appraisal district information is correct, clerical error reports must be sent to the appraisal district.

#### Tasks:

- A. Generate a clerical error report and send or deliver it to the appraisal district when you have completed the county, or portion of the county you are assigned.
- B. Contact appraisal district personnel to ensure that district staff have reviewed the report and made the appropriate updates and corrections.
- C. Verify all updates and corrections made by the district by conducting an on-site review of CAD records or by receipt of documentation reflecting changes by CAD.

### **Procedure 13: Submit study data to PTD headquarters.**

#### Directives to staff:

- A. Completed data will be submitted to PTD headquarters.
- B. Data submitted will include ISD or CAD sample, CAD comments, CAD profile (see appendix 9), and land schedules.

#### Tasks:

- A. Upload sample data to Austin LAN.
- B. E-mail CAD comments to your lead and Supervisor.

### **Procedure 14: Organize and store documentation.**

#### Directive to staff:

- A. Store documentation relevant to sales and appraisals included in the current year's study. Retain the entire population of sales from which selections were drawn, in addition to documentation for sales time frames, random selection and any properties you excluded from the population.
- B. It is imperative that study documentation is kept for two full years after the study. In October of each study year, staff may dispose of the third year back. For example, during the 2009 Study year, staff retains 2008 and 2007. In October of 2009, the 2006 records are disposed of. Always check with Austin to ascertain that none of your districts are involved in a lawsuit in the year of disposal. If a district is involved in a lawsuit, forward all documentation to Austin headquarters.

Tasks:

- A. Verify that all necessary documentation is in your records.
- B. Organize and store data.

***Procedure 15: Delivery of study results for districts that have preliminary invalid findings.***

Field Studies Supervisors and Lead Appraisers will obtain a copy of the preliminary findings for all districts that have invalid findings. Beginning on the day the study is released and continuing for no more than two weeks, supervisory and lead appraisers will go to the individual appraisal districts and explain PVS preliminary results to the chief appraiser.

**Appendix 1**

**Comptroller of Public Accounts  
Property Tax Division  
Request for Property Transfer Records (Warranty Deed Information)**

**To:** \_\_\_\_\_  
**Appraisal District Name**

**From:** \_\_\_\_\_  
**Field Appraiser**

**ISDs:** \_\_\_\_\_  
**School District Name(s)**

**Time Period:** \_\_\_\_\_

Please provide property transfer records (warranty deed information) for the school districts listed above. The Property Tax Division can accept data on the following media:

1. Printout
2. CD ROM
3. Email with spreadsheet attachment

**If data is submitted on electronic media, please provide a record layout.**

**Requested Fields**

**Requested Sort**

1. ISD code
2. CAD account number
3. State category code (SPTB code)
4. Sale Price
5. Deed Date \*\*\*
6. Volume and page of deed \*\*\*
7. Type of Deed
8. Grantee \*\*\*
9. Grantee address \*\*\*
10. Grantor
11. Grantor address
12. Legal description \*\*\*
13. Situs (physical address)
14. Comments

1. By ISD
2. By State category code

\*\*\* These are the fields necessary to generate warranty deed letters. However, if you can provide more information, additional fields would be valuable for Property Tax Division staff to obtain.

**Comptroller of Public Accounts  
Property Tax Division  
Request for Sales Data**

**To:** \_\_\_\_\_  
**Appraisal District Name**

**From:** \_\_\_\_\_  
**Field Appraiser**

**ISDs:** \_\_\_\_\_  
**School District Name(s)**

**Time Period:** \_\_\_\_\_

Please provide sales data for the school districts listed above. The Property Tax Division can accept data on the following media:

1. Printout
2. CD ROM
3. Email with spreadsheet attachment

**If data is submitted electronically, but not in compliance with the electronic data submission project, please provide a record layout.**

**Requested Fields**

1. ISD code \*\*\*
2. CAD account number \*\*\*
3. State category code (SPTB code) \*\*\*
4. Sale Price \*\*\*
5. Sale Date \*\*\*
6. Volume and page of deed
7. Legal description \*\*\*
8. Situs (physical address)
9. CAD land value \*\*\*
10. CAD improvement value \*\*\*
11. Total CAD value
12. Comments
13. Square footage
14. Age of building
15. Condition of building
16. Building class
17. Subdivision code
18. Map number
19. Lot size
20. Sale confirmation/verification code (arm's length, foreclosure, HUD, estate sale)
21. Grantor
22. Grantee
23. Sale source code
24. Finance code\* (FHA, VA< conventional, assumption)

**Requested Sort**

1. By ISD
2. By category code
3. By CAD value

\*\*\* These are the fields necessary to record sales data in the PTD system. However, if you can provide more information, additional fields would be valuable for Property Tax Division staff to obtain.

## Appendix 2

### Random Sampling Procedures

Sampling is the foundation on which the ratio study is built. Statistics calculated from a sample of properties are used to draw conclusions about a population of properties. For our purposes, when randomly selecting sales, the population consists of all parcels that *sold* in a property category or value stratum. When randomly selecting properties to appraise, the population consists of *all* parcels in a property category or value stratum. The sample consists of randomly selected parcels for which sales data or independent appraisals are available.

The following procedure applies when random selection must be done using hard copy lists.

1. Using all sources, compile your population by category and, if possible, by category value stratum. Accounts need not be in any particular order within the stratum.
2. When working with a sales population, it may be to your advantage to eliminate all non-market transactions. Be sure to keep a file of all non-market transactions.
3. Consecutively number each account in each stratum beginning with 1 in each stratum.
4. Generate a list of random numbers for each value stratum being sampled. (See Appendix 3 for instructions). The number of random numbers on the list should be 4 to 10 times the required parcel count for the stratum. Save these lists on your computer as documentation.
5. Match the appropriate list of random numbers to the proper value stratum.
6. Starting at the top of the list of random numbers, select the first random number and match it to the correspondingly numbered property in the population. For example, if the first random number is 105, select the property numbered 105 from the population. Mark each account that has been selected for inclusion in the study sample.
7. Working down the list of random numbers, continue this procedure until the required sample size plus a few extra for the category or stratum is achieved.
8. If a randomly selected property is not a valid sale or you are unable to appraise it, you must skip this property, document why it was skipped and go to the next property using the next random number.
9. Select extra sample parcels for each stratum, especially if the required sample size is small, because some sample parcels may be deleted during internal review or appeals. You may include as many as 50 parcels more than the required sample size. Larger samples may be approved by your Supervisor in appropriate circumstances.

## Appendix 3

### Random Number Generation Instructions

1. Open **Excel**.
2. Click the **Data** tab and choose **Data Analysis**. If you do not see **Data Analysis**, follow the steps in *Ad Analysis ToolPa t Exce 07* before continuing.
3. From the **Data Analysis** window, choose **Random Number Generation** and click the **OK button**.
4. Another dialog box will appear that will prompt for the following:
5. **Number of Variables** - Type the number of random lists you want on the output table (default is 1).
6. **Number of Random Numbers** - Enter between 4 and 10 times the required sample here. The list will have duplicate numbers. If you do not generate a list with enough numbers to take into account number duplication and properties that will be eliminated, you will have to start the random sampling procedure for the stratum all over again from the beginning.
7. **Distribution** – Choose Uniform.
8. **Parameters** - Enter the population here, i.e., if 200 sales are available, enter **Between 1 and 200**.
9. **Random Seed** - Type the last three digits of the ISD number here (i.e., if you are generating a random list for 101-912, Category A, type 912). You can use the same parameters and random seed number to produce the same random number list at a later time.
10. **Output Range** - Type the reference number for the upper left cell in which you want the output to appear (default is A1).
11. Choose **OK**. A random list of numbers will appear.
12. To format the numbers, choose **Format, Number, Format, O (zero)**. Save the file using the school district number and category for the file name (i.e., ISD 101-912, Category A, should be saved as 101912A).

**Do not sort the list in numerical order!!**

**If you have any problems with this procedure, call Austin headquarters.**

**Appendix 4**

**Comptroller of Public Accounts  
Property Tax Division  
Misclassified Property Form**

Instructions: Please complete this form when you discover either widespread classification problems in a school district or locate a property with significant value that has been misclassified. Return this form to the Local Value Analysis.

Name: \_\_\_\_\_ Region: \_\_\_\_\_

Category used by district: \_\_\_\_\_ Correct Category: \_\_\_\_\_

School Name: \_\_\_\_\_ Number: \_\_\_\_\_

CAD Name: \_\_\_\_\_ Number: \_\_\_\_\_

Property Account Number: \_\_\_\_\_

Legal Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Has district been notified? Yes \_\_\_\_\_ No \_\_\_\_\_

Estimated value of property: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Appendix 5

### Exception Procedure

#### **Definition**

When PTD applies a property's ratio to the value of that property only, the ratio is an "exception ratio". This practice is an exception from the normal procedure. Usually the division uses at least five properties in a stratum to compute the stratum ratio. When using an exception ratio, the division creates a separate stratum that consists of a single property.

#### **Procedure**

PTD applies an exception ratio when:

- a single property's appraised value contains at least 20 percent of a property category's reported value in a school district . This procedure occurs systemically on the mainframe.

#### **Discussion**

PTD will use this exception procedure because a property that is more than 20 percent of the value in a category may result in a non-representative level of appraisal. The exception procedure removes this possibility by isolating the high-value property. It also improves the market value estimate for the remainder of the category by preventing the ratio from the large property from overwhelming the ratios of the rest of the sample.

#### ***Why does PTD ever include these large properties in samples if they may not be representative?***

PTD will include these significant properties to increase the accuracy of the school district value estimates. Properties that are this significant in value can't be excluded because doing so will result in an inaccurate estimate of value. These properties are isolated for purposes of representativeness but included in the study results because of the need for accuracy. PTD gives school district values priority because the state bases several billion dollars in school funding on them.

## Appendix 6

### Example of CAD Comments

The following is an example of what should be included in CAD comments:

#### Property Tax Division 2002 Property Value Study General Comments

#### Nueces County Appraisal District #178

The following comments are for the 2002 Property Value Study. The CAD has an experienced staff who have very good relations within the county. The Chief Appraiser is Ollie Grant and the staff I work with is Deputy Chief Appraiser, Michael Mantz; Coordinator of Residential Real Estate/Sales Information, Velma De Los Santos; Coordinator of Personal Property, Shirley Fechner; Coordinator of Land Valuations, Karen Jeuleg; Coordinator of Commercial Real Estate, Pete Lopez; Director of Data Processing/Information Services, Tim Pendergraft; and Commercial/Condo's appraiser, Sue Dobbs. The CAD has 12 ISDs (Agua Dulce, Bishop, Calallen, Corpus Christi, Driscoll, London, Port Aransas, Robstown, Tuloso/Midway, Banquete, Flour Bluff, and West Oso). All comments listed below are for all ISD's unless otherwise stated:

1. Sales were obtained from the CAD, MLS, CAD sales letters and Warranty Deed sales letters received by the Property Tax Division.
2. The sales time frame used was 1/01 - 6/02 for all categories in all ISDs; \* except Corpus Christi ISD (Category A = 4/01 - 3/02), Calallen ISD (Category A = 4/01 - 3/02), Port Aransas ISD (Category A = 1/01 - 3/02 & Category C = 1/01 - 3/02), Tuloso/Midway (Category A = 1/01 - 3/02), and Flour Bluff ISD (Category A = 4/01 - 3/02 & Category C = 1/01 - 3/02).
3. LCM's used for category A & E's: Agua Dulce ISD = 1.09, Bishop ISD = 1.09, Driscoll ISD = 1.09, Banquete ISD = 1.09; Robstown ISD = 1.08; Tuloso/Midway ISD: cat A = n/a, cat E = 1.09; West Oso ISD = 1.29; and London ISD (rural = 1.09, RSV14's = 1.01, & RSV10's, RSV12's = 1.00). All properties appraised in county were randomly selected.
4. All sales used in all ISDs; \* except for Calallen ISD #178-903 (Category A); Corpus Christi ISD #178-904 (Category A); and Flour Bluff ISD #178-914 (Category A and part of category C - strata 2); in which sales were randomly selected.
5. Category L appraisals were performed for Calallen, Corpus Christi, Robstown, Tuloso/Midway, and West Oso ISD's. Renditions and trended depreciation were used along with field inspections. Personal property staff was very cooperative as always.
6. No 'late sales' needed for 2002.
7. Time adjustments on sales were used for only Category A in Corpus Christi ISD, Port Aransas ISD, and Flour Bluff ISD. Using the linear trend line/regression analysis on Category A: the factors are:

Corpus Christi ISD #178-904 (2361 sales)	<b>.00218/month</b> (2.6%/yr)
Port Aransas ISD #178-908 (106 sales)	<b>.00583/month</b> (7%/yr)
Flour Bluff ISD #178-914 (596 sales):	<b>.00570/month</b> (6.8%/yr)

The CAD was professional and cooperative as always.

Moe Trevino, Field Staff Lead Appraiser  
Property Tax Division

## Appendix 7

### Sales Layout Format

1	CAD Code	Numeric	3	1	3	<p>The numeric identification code for the appraisal district as assigned by the Property Tax Division. This three digit code is unique to the Appraisal District, not the county. The codes are used in the Appraisal District Directory published by the PTD. They run from '001' to '254'. You are only sending data for your appraisal district, so this number should always be the same.</p> <p>Example:            001 - Anderson County Appraisal District            002 - Andrews County Appraisal District            and so on.</p>
2	School District Code	Alphanumeric	6	4	9	<p>The Property Tax Division's assigned identification code for the school district (ISD) in which the property is located. The code number matches each ISD to its name. The Comptroller prints these numbers with the taxing unit's name in the Texas Appraisal District Directory each year.</p> <p>Examples:            001-902 represents Cayuga Independent School District.                001 is Anderson County.                902 is a unique school identifier in the county.</p>
3	Comptroller's Category Code	Alphanumeric	2	10	11	<p>The code used by the Property Tax Division for the use category of the property. If the appraisal district uses different category codes, translate the district's code to the one below that best fits the property. Use one of the following codes:</p> <p>"A" - Single-family Residences            "B" - Multifamily Residences            "C" - Vacant Lots            "D" - Acreage            "E" - Farm or Ranch Improvements            "F1" - Commercial Real Property            "F2" - Industrial Real Property            "G" - Oil, Gas or Mineral Property            "J" - Utility Property            "L1" - Commercial Personal Property            "L2" - Industrial Personal Property            "M1" - Tangible Other Personal, Mobile Homes            "M2" - Tangible Other Personal, Other            "N" - Intangible Property            "O" (Oh, not zero) - Residential Inventory</p>
4	Account Number	Alphanumeric	25	12	36	<p>The unique code (alphanumeric, numeric or alphabetic) that your district uses to identify a specific property. If multiple properties are included in one sale, a separate record should be submitted for each property (see Multiple Account Code, Field #27).</p>

5	Parcel Address	Alphanumeric	40	37	76	The situs (location of the property). The address includes the street, apartment or suite number (if any), city, or other alphanumeric description for locating the property. Example: 100 West Main, Suite 100, Austin
6	Parcel Zip Code	Numeric	5	77	81	The situs zip code. Example: 78750.
7	Legal Description	Alphanumeric	200	82	281	The property description found on formal documents; describes property in a manner that enables a person to locate it with government officials and usually filed with the county clerk. Example: Lot 3, Block 1, Section 1, Hughes Tract
8	Month of Sale	Numeric	2	282	283	The month of the sale in MM format. Example: 05 represents May
9	Day of Sale	Numeric	2	284	285	The day of the sale in DD format. Example: 25 represents the 25 <sup>th</sup> day of the month.
10	Year of Sale		4	286	289	The year of the sale in YYYY format. Example: 1998
11	Sale Price	Numeric	12	290	301	The amount of consideration in whole dollars. Example: 000000147500 represents \$147,500
12	Grantee Name	Alphanumeric	50	302	351	The name of the buyer. Example: Joe Easeldorf
13	Grantee Address Line 1	Alphanumeric	35	352	386	Line one of current owner's address
14	Grantee Address Line 2	Alphanumeric	35	387	421	Second line of current owner's address, if needed
15	Grantee City	Alphanumeric	24	422	445	Current owner's city
16	Grantee State	Alphanumeric	2	446	447	Current owner's state
17	Grantee Zip	Numeric	9	448	456	Current owner's zip
18	Grantor Name	Alphanumeric	50	457	506	The name of the seller. Example: RTF Corporation
19	Grantor Address Line 1	Alphanumeric	35	507	541	Line one of previous owner's address
20	Grantor Address Line 2	Alphanumeric	35	542	576	Second line of previous owner's address, if needed
21	Grantor City	Alphanumeric	24	577	600	Previous owner's city
22	Grantor State	Alphanumeric	2	601	602	Previous owner's state

23	Grantor Zip	Numeric	9	603	611	Previous owner's zip
24	Deed Volume	Alphanumeric	5	612	616	The volume number in which the deed of sale is recorded. Example: 1634 represents volume 1634.
25	Deed Page	Alphanumeric	7	617	623	The page number in which the deed of sale is recorded OR the film recordation number at the county clerk's office. Example: 000182 represents page 182.
26	Deed Type	Alphanumeric	12	624	635	Deed type of most recent sale. Example: GWD (general warranty deed), WDWL (warranty deed w/vendor's lien, CD (contract for deed), SWD (special warranty deed).
27	Map Number	Alphanumeric	25	636	660	The CAD map number or the PID number for the plat. This may be the Graphical Information System (GIS) identification number for the property.
28	Multiple Account Code	Alphanumeric	1	661	661	An indicator as to whether there are multiple accounts or multiple properties included in a single sales transaction for this property. Include in the comments fields the other account numbers that are included in the same sale. Enter "Y" or "N".
29	Source Code	Alphanumeric	3	662	664	A three character indicator which identifies the source of the sales information. Use one of the following codes: ARB - Appraisal Review Board, or CAD - Central Appraisal District, or OWN - Property Owner, or AGT - Real Estate Agent/Broker, or MLS - Multiple Listing Service, or OTH - Other source.
30	Verification Code	Alphanumeric	1	665	665	An indicator as to whether the sales information has been verified from a second source. Enter "Y" or "N".
31	Validity Code	Alphanumeric	1	666	666	Is this sale considered a valid "arms length" transaction? Enter "Y" or "N".
32	Confidential Code	Alphanumeric	1	667	667	Is the information about this sale considered to be confidential information? Enter "Y" or "N".
33	Frozen Characteristics	Alphanumeric	1	668	668	An indicator as to whether the current property characteristics, as last reported to the Property Tax Division, reflect the condition of the property at the time of the sale. Enter "Y" or "N." Examples where the indicator will be "N": A rundown house sold in December has been remodeled in January. A vacant lot now has a structure
34	CAD Value - Land	Numeric	12	669	680	The appraisal district's estimate of market value, in whole dollars, of the land for this property.
35	CAD Value - Improvement	Numeric	12	681	692	The appraisal district's estimate of market value, in whole dollars, of the improvement for this property.
36	CAD Value - Personal Property	Numeric	12	693	704	The appraisal district's estimate of market value, in whole dollars, for the taxable personal property of the account.
37	Total CAD	Numeric	12	705	716	The appraisal district's estimate of market value, in whole dollars, for the total appraised value of the property.

	Value						
38	Square Footage - Improvement	Numeric	7		717	723	Square footage of main improvement. For residential properties, provide square footage of living area. For commercial properties, provide total square footage.
39	Land Unit Type	Alphanumeric	2		724	725	Unit used to value land. Examples: SF = Square Foot AC = Acre FF = Front Foot FV = Flat Value
40	Number of Land Units	Numeric	9	3	726	734	Number of square feet, acres, etc.
41	Number Bedrooms	Numeric	1		735	735	Number of bedrooms (if applicable).
42	Number Baths	Numeric	2	1	736	737	Number of bathrooms (if applicable).
43	CACH?	Alphanumeric	1		738	738	Does main improvement have central air conditioning and heating? Enter "Y" or "N"
44	Year Built	Numeric	4		739	742	Year of construction of main improvement in YYYY format.
45	Construction Type/Class	Alphanumeric	10		743	752	Appraisal district code for construction type/class of main improvement. Examples: RV7- = residential veneer class 7 RF3+ = residential frame C-CB3 = commercial concrete block class 3 C-TW4 = commercial tiltwall class 4
46	Financing Code	Alphanumeric	5		753	757	Code to indicate how the sale was financed. Example: FHA, VA, Owner, Conv
47	Sales Information Comments Line 1	Alphanumeric	50		758	807	This is the first of two lines of 50 characters in which you may provide additional information about the sale.
48	Sales Information Comments Line 2	Alphanumeric	50		808	857	This is the second of two lines of 50 characters in which you may provide additional information about the sale.
	Filler		679		858	1536	



