



Property Tax Assistance Division
2023 Report

Review of
Appraisal
District
Appraisal
Standards,
Procedures and
Methodology

TARGETED APPRAISAL REVIEW PROGRAM

BREWSTER COUNTY APPRAISAL DISTRICT



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2023 TARGETED APPRAISAL REVIEW

BREWSTER COUNTY APPRAISAL DISTRICT

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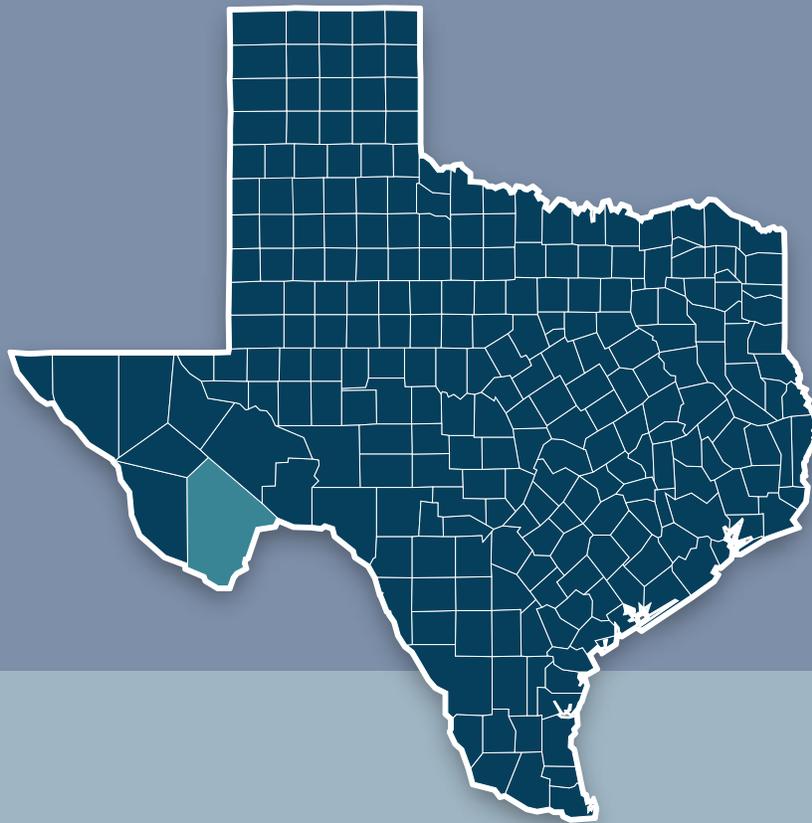




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Executive Summary

In September 2023, the Texas Comptroller of Public Accounts identified Alpine Independent School District (Alpine ISD), located in Brewster County, as one of 46 school districts meeting the criteria that initiates a Targeted Appraisal Review (TARP) of the appraisal district in which the school district is located. In 2023, the Property Tax Assistance Division (PTAD) conducted the review of the Brewster County Appraisal District (Brewster).

TARGETED APPRAISAL REVIEW PROGRAM OVERVIEW

If a school district receives invalid School District Property Value Study (SDPVS) findings for three consecutive years, Government Code Section 403.302 (k-1) requires PTAD to conduct a review of the appraisal district to determine why a school district’s values are statistically invalid and provide recommendations to the appraisal district regarding appraisal standards, procedures and methodologies.

PTAD reviewers used the [Targeted Appraisal Review Program Guidelines](#) to perform this review. This report contains the findings of the 2023 TARP review of Brewster. Over the next year, TARP reviewers will work with Brewster to address and resolve recommendations outlined in this report. **Exhibit 1** provides a timeline for the TARP cycle.

Upon substantial compliance with all recommendations, PTAD will issue a formal letter of compliance to Brewster and its board of directors.

If the appraisal district fails to comply with recommendations provided in the report and PTAD finds the appraisal district board of directors failed to take remedial action reasonably designed to ensure substantial compliance with each recommendation before the first anniversary of the date the recommendations were made, PTAD will notify the Texas Department of Licensing and Regulation (TDLR), which takes action necessary to ensure the recommendations are implemented as soon as practicable.

EXHIBIT 1

TARP Process Timeline

NOTIFICATION

- PTAD sends TARP notification letters and preliminary data requests to affected appraisal districts.

REVIEWS

- Preliminary data is due to PTAD.
- TARP reviewers complete onsite visits.

RECOMMENDATIONS

- PTAD releases initial TARP reports.
- Appraisal districts have one year to work with their TARP reviewers to substantially comply with TARP report recommendations. PTAD mails formal compliance letters when appraisal districts have substantially implemented all recommendations.

REMAINING RECOMMENDATIONS

- PTAD notifies TDLR of remaining recommendations one year after the initial TARP report is released.
- Appraisal districts have one year to work with TDLR, who determines substantial compliance and reports to the chief appraiser and appraisal district board of directors.



INVALID SCHOOL DISTRICT PROPERTY VALUATION

PTAD identified Alpine ISD in Brewster as having invalid SDPVS findings for three consecutive years. **Exhibit 2** highlights the impacted school districts and categories with local values that fell outside the SDPVS statistical confidence interval in the applicable three-year period. PTAD determines the confidence interval using a 5 percent or greater margin of error around PTAD’s determined market value. PTAD considers local values valid, or statistically acceptable, when they are within the confidence interval. Values outside this confidence interval are statistically invalid.

EXHIBIT 2

Brewster SDPVS Results 2020-2022

| SDPVS Year | County | School District | Findings | Category* | Ratio |
|------------|----------|-----------------|----------|-----------|--------|
| 2020 | Brewster | Alpine ISD | Invalid | A | 0.8023 |
| 2020 | Brewster | Alpine ISD | Invalid | D1 | 0.7995 |
| 2020 | Brewster | Alpine ISD | Invalid | E | 0.6685 |
| 2021 | Brewster | Alpine ISD | Invalid | A | 0.8797 |
| 2021 | Brewster | Alpine ISD | Invalid | D1 | 0.9427 |
| 2021 | Brewster | Alpine ISD | Invalid | E | 0.4854 |
| 2022 | Brewster | Alpine ISD | Invalid | A | 0.8686 |
| 2022 | Brewster | Alpine ISD | Invalid | D1 | 0.8973 |
| 2022 | Brewster | Alpine ISD | Invalid | E | 0.5891 |

*Categories are defined in the [Texas Property Tax Assistance Property Classification Guide](#).

Source: Texas Comptroller of Public Accounts, [School District Property Value Study](#)

RECOMMENDATIONS

Based on our findings in the TARP review of Brewster, PTAD makes the following recommendations, which are discussed in greater detail throughout this report:

- Hire sufficient support staff to enable appraisers to focus solely on appraisal functions.
- Conduct a salary survey to establish competitive salaries for the local job market.
- Develop a clearly defined job description for the chief appraiser position.
- Train staff to fully use the appraisal software system.
- Update appraisal district maps to reflect all properties.
- Conduct ratio studies by market area and neighborhood, property class or stratum.
- Use Brewster’s local ratio study results to make reappraisal decisions necessary to produce accurate values
- Delineate appropriate market areas in the reappraisal plan.
- Develop valuation procedures and cost schedules for manufactured homes and use ratio study results to annually review and update the schedules.
- Use properly calculated values for land designated as agricultural use.
- Maintain market value for vacant land properties and review and update land schedules annually.

Section 1 – Overview of County Appraisal District

1.1 COUNTY HISTORY AND DEMOGRAPHICS

According to *The Handbook of Texas Online*, Brewster County was created in 1887 from Presidio County by the Texas State Legislature and named after Henry Percy Brewster, who served as Secretary of War for the Republic of Texas.

Brewster County is the largest county in Texas, is located in the Trans-Pecos region of West Texas and is the site of Big Bend National Park, the largest park in the state. Brewster County is bordered by Presidio County to the west, Jeff Davis County to the northwest, Pecos County and Terrell County to the east and the Rio Grande to the south.

The county includes the Alpine, Marathon, San Vincente and Terlingua Independent School Districts. The county population in 2020, according to the United States Census Bureau, was 9,546. Alpine is the major population center, hosting 5,905 residents. Other communities in the county include Marathon and Terlingua.

Based on the 2020 census population, PTAD classifies Brewster as Tier 3 for comparison with appraisal districts of similar population size.

Exhibit 3 shows the population brackets for each tier.

1.2 APPRAISAL DISTRICT ORGANIZATION AND STAFFING

Brewster became active in January 1980. As of July 2024, it has six full-time staff positions, of which one position is supervisory and five positions are full-time appraisers. Brewster contracts with a vendor for professional appraisal services. **Exhibit 4** presents Brewster’s general organizational structure.

1.3 TAXING UNITS

Local taxing units, including the school districts, counties, cities, junior colleges and special districts, decide how much money they require to effectively provide public services. They adopt property tax rates based upon taxing unit financial needs (budget). Some taxing units have access to other revenue sources, such as a local sales tax. School districts must rely on the local property tax, in addition to state and federal funds.

Brewster provides appraisal services for seven taxing units, as shown in **Exhibit 5** and does not perform collection services.

EXHIBIT 3

| County Population by Tier | |
|---------------------------|-----------------------------|
| Tier | Total Population Range |
| 1 | 120,000 + |
| 2 | Less than 120,000 to 20,000 |
| 3 | Less than 20,000 |

Source: Texas Comptroller of Public Accounts

EXHIBIT 4



Source: Brewster County Appraisal District



EXHIBIT 5

Brewster Taxing Units and Collections

| Name of Taxing Unit | Appraisal District Collects Property Taxes |
|--|--|
| Alpine Independent School District | No |
| Brewster County | No |
| Brewster County HD | No |
| City of Alpine | No |
| Marathon Independent School District | No |
| San Vincente Independent School District | No |
| Terlingua Common School District | No |

Source: Texas Comptroller of Public Accounts

1.4 APPRAISAL DISTRICT BUDGET INFORMATION

Taxing units fund the appraisal district through an annual budgeting process. Tax Code Section 6.06 requires the chief appraiser to develop the budget and the board of directors to hold a public hearing to consider the budget. Each participating taxing unit in the appraisal district must contribute a portion of the budget amount equal to the proportional amount of taxes levied in the taxing unit.

Chapter 5 of the International Association of Assessing Officer's (IAAO's) *Assessment Administration* explains that the budget is the crucial link in an appraisal district's ability to make set rational priorities. A budget typically details how resources will be used to accomplish the appraisal district's goals and objectives. IAAO's *Standard on Property Tax Policy* states that to accomplish its responsibilities in a fair and professional manner, the appraisal district should have a budget that provides for a well-organized staff, sufficient computing recourses and necessary data.

Exhibit 6 provides a comparison between Brewster's 2022 budget versus the Tier 3 average 2022 budget (excluding collections) to show how Brewster's budget aligns with the tier average.

EXHIBIT 6

Brewster 2022 Budget, vs. Tier 3 Average

| Brewster County Appraisal District Budget (2022) | Tier 3 Average Budget (2022) |
|--|------------------------------|
| \$560,752 | \$547,673 |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey*

In 2022, Brewster operated with a budget of \$560,752, similar to the 2022 Tier 3 average budget of \$547,673. This budget comparison highlights the similar financial resources, as reported by Brewster in the *2022 Appraisal District Operation Survey*. A four-year budget history and tier average comparison is available in **Appendix 1**.



1.5 APPRAISAL DISTRICT STAFF INFORMATION

The geographic size of the appraisal district and number of parcels to be appraised directly reflect the number of staff necessary to perform the appraisal district’s responsibilities. The complexity of the appraisals and the experience and expertise of the staff also impact appraisal district needs.

Exhibit 7 provides a comparison between Brewster’s 2022 staffing and the Tier 3 average (excluding collections) to determine how Brewster staffing and salaries compare with the tier average.

EXHIBIT 7

Brewster 2022 Staffing and Salaries vs. Tier 3 Average

| | 2022 | 2022 Tier 3 Average |
|--------------------------|----------|---------------------|
| Full Time Staff | 6 | 4 |
| Part Time Staff | 0 | N/A |
| Full Time Appraisers | 6 | 3 |
| Lowest Appraiser Salary | \$30,000 | \$39,505 |
| Highest Appraiser Salary | \$52,000 | \$48,041 |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey*

From 2019 to 2022, Brewster has consistently maintained a full-time staff of six, slightly higher than the 2022 Tier 3 average of four. The appraisal district employed four to six full-time appraisers from 2019 to 2022, higher than the 2022 Tier 3 average. The lowest appraiser salary decreased from \$31,277 in 2019 to \$30,000 in 2022, which is below the 2022 Tier 3 average of \$39,505. The highest appraiser salary decreased from \$56,779 in 2019 to \$52,000 in 2022, higher than the 2022 Tier 3 average of \$48,041. A four-year staff and salary history and Tier 3 average comparison is available in **Appendix 2**.

FINDING

Brewster lacks adequate support staff, preventing appraisers from focusing solely on appraising property.

IAAO’s *Standard on Mass Appraisal*, Section 6.2.1, Staffing, states that the staff should be a mix of individuals skilled in general administration, supervision, appraisal, mapping, data processing and clerical functions. It also highlights the importance of flexibility in the staffing structure, as the staffing needs can vary significantly based on factors such as the frequency of reappraisals.

Brewster lacks adequate staff to perform duties effectively. Brewster appraisers perform clerical functions which limits their time doing appraisal functions. Brewster should employ additional staff to complete the daily responsibilities, such as assisting the public with questions, entering new data into the CAMA system, processing exemption applications and answering phone calls.

Adequate support staff would allow appraisers to focus on conducting additional inspections and performing market analyses. The appraisal district may also consider hiring additional part-time clerks to further support office functions.

RECOMMENDATION 1

Hire sufficient support staff to enable appraisers to focus solely on appraisal functions.



FINDING

The Brewster board of directors has not conducted a salary survey in the previous five years.

IAAO's *Introduction to Assessment Administration*, Chapter 3, Organization for Assessment Administration, recommends that salary schedules be competitive with the market if the budget permits and that salaries should be equitable.

Appraisal districts can gather salary information through salary surveys and comparisons with other appraisal districts to establish competitive salaries. As shown in **Exhibit 7**, Brewster's appraisal salaries are lower than the Tier 3 average.

RECOMMENDATION 2

Conduct a salary survey to establish competitive salaries for the local job market.

1.6 TRAINING

IAAO's *Standard on Professional Development* follows the principle that "assessment jurisdictions benefit when they have knowledgeable and adequately trained personnel to preserve the public's trust; therefore, it is of the utmost importance."

Exhibit 8 provides Brewster's annual training budget and number of trainings attended for the past three years. Appraisal districts should maintain adequate training budgets to allow for certification and continued education of staff.

EXHIBIT 8

Brewster Training Budget and Number of Trainings

| | 2022 | 2021 | 2020 |
|------------------------------|---------------|---------------|---------------|
| Training Budget | \$18,000 | \$18,000 | \$25,000 |
| Number of Trainings Attended | Not Available | Not Available | Not Available |

Source: Brewster County Appraisal District

From 2020 to 2022, Brewster's training budget decreased from \$25,000 to \$18,000. Due to significant staff turnover, Brewster was unable to provide documentation to verify if trainings were attended or if the training budget was used.

1.7 CHIEF APPRAISER

The board of directors is responsible for hiring and periodically evaluating the chief appraiser, who coordinates and oversees appraisal district operations. In organizing and administering an appraisal district, the chief appraiser is responsible for hiring, firing and training personnel; for ensuring compliance with a wide range of legal requirements; and for maintaining policies and procedures for the effective operation of the appraisal district. **Exhibit 9** provides detailed information regarding Brewster's chief appraiser.



EXHIBIT 9

Brewster Chief Appraiser Information**Chief Appraiser**

| | |
|--|-----------|
| Is the Chief Appraiser permanent, temporary or interim? | Permanent |
| Does the Chief Appraiser perform appraisals? | Yes |
| 2022 Base Salary | \$72,000 |
| Chief Appraiser – Years at appraisal district | 1 |
| Chief Appraiser – Years as a Chief Appraiser | 1 |
| Does the Chief Appraiser receive a car allowance? | No |
| What is the amount of the car allowance? (If applicable) | N/A |
| Does the Chief Appraiser receive retirement benefits? | Yes |
| Does the Chief Appraiser receive medical insurance benefits? | Yes |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey* and Brewster County Appraisal District

FINDING

Brewster lacks a job description for the chief appraiser position.

IAAO's *Introduction to Assessment Administration*, Chapter 3, Organization for Assessment Administration, states that performance evaluations measure the employee's ability to successfully carry out the responsibility of the position in terms of the job description. The job description must be the basis for measuring the employee's ability to successfully carry out the responsibilities of the position.

The most recent chief appraiser at the time of the onsite review was unable to provide a job description for his position. Lack of clear direction from the board of directors can cause confusion about the expectations for someone performing this role.

The chief appraiser must understand the board of directors' expectations and responsibilities. A clear job description will improve communication, provide direction and assist in evaluating the chief appraiser's performance.

RECOMMENDATION 3

Develop a clearly defined job description for the chief appraiser position.

1.8 APPRAISAL DISTRICT CONTRACTS

PTAD reviews appraisal district contracts for compliance according to IAAO's *Standard on Contracting for Assessment Services*. **Exhibit 10** lists Brewster's contracts, which are discussed in more detail in throughout this report.

Project control is important for the stakeholders of both the government agency and the contractor. Having control can help the project manager/program manager compare actual performance against planned performance. The project manager can identify potential problems, evaluate alternative actions and plan for appropriate corrective action.



Project leaders typically create a project plan that includes the tasks to be performed, the project timeline, a budget and project resources. By monitoring the plan and the actual work performed, the project manager can measure both qualitative and quantitative progress.

If the project is deviating from the project timeline, corrective action may be necessary. Deviations can be caused by a number of issues such as change in the project scope or project resources or other setbacks. The corrective plan should be created with input from all project stakeholders.

An appraisal district is a political subdivision of the State of Texas and is subject to the same requirements and has the same purchasing and contracting authority as a municipality under Chapter 252, Local Government Code.

EXHIBIT 10

Brewster Contracts

| Type of Contract | Contract Dates | Years with Same Vendor | Does appraisal district actively monitor contract? |
|---|----------------|------------------------|--|
| Appraisal of Minerals, Industrial and Utilities | 1985-2024 | 39 years | Yes |
| Consulting | 2017-2024 | 7 years | Yes |
| Software | 2004-2024 | 20 years | Yes |
| Mapping | 2017-2024 | 7 years | Yes |
| GIS | 2017-2024 | 7 years | Yes |

Source: Brewster County Appraisal District

Section 2 – Appraisal Administration

2.1 APPRAISAL DISTRICT PARCEL DATA

PTAD collects appraisal district parcel data to determine the ratio of appraisers to parcel count and to compare it with the typical parcel per appraiser average in **Exhibit 11**.

EXHIBIT 11

2022 Brewster Parcel Information vs. Typical Parcel Per Appraiser Average

| Parcel Information | Brewster | Typical Parcel Per Appraiser (Rounded) |
|-----------------------------|----------|--|
| Parcel Count | 20,101 | 10,001 – 70,000 |
| Parcels per Appraisal Staff | 3,342* | 6,400** |

Source: Texas Comptroller of Public Accounts, *Electronic Appraisal Roll Submission*

* Excludes parcels for contracted appraisal services:

** Includes all property categories



In 2022, Brewster managed 20,101 parcels placing it on the low side of appraisal districts with 10,001 to 70,000 parcels. Brewster contracts for appraisal services in Categories F2, G and J. Parcels in these categories are removed from the total parcel count to determine the parcels per appraiser of 3,342. This indicates that Brewster’s parcels per appraiser is lower than the typical parcel per appraiser average, which includes all property categories.

From 2019 to 2022, Brewster managed parcel counts ranging from 19,811 to 20,101 (including all property categories) and the parcels assigned per appraiser for properties appraised in house ranged from 3,293 to 5,004. The total market value of certified parcels increased from \$1,853,623,959 to \$2,117,581,457 between 2019 and 2022. **Appendix 3** provides the appraisal district’s parcel data over the four-year review period.

2.2 CONTRACTED APPRAISAL SERVICES

From 2019 to 2022, appraisal district staff appraised 72 to 92 percent of the total appraised value within the appraisal district, specifically for Categories A, B, C, D, E, F1, L, M, O and S. From 2019 to 2022, Brewster contracted for appraisal services for property Categories F2, G and J. Each year, these contracted firms appraised between 8 to 28 percent of the total appraised value within the appraisal district. The cost of these services varied from \$27,000 to \$40,000 over four years. The appraisal district also uses a geographic information system (GIS), but not an aerial technology system.

Exhibit 12 lists Brewster’s contracted appraisal services.

EXHIBIT 12

Brewster’s Contracted Appraisal Services

| | 2022 | 2021 | 2020 | 2019 |
|---|-------------|-------------|-------------|-------------|
| Appraisal Services Contract | Yes | Yes | Yes | Yes |
| Contracted Property Categories | F2, G and J |
| Percentage of total appraised value appraised by contracted appraisal firms | 28% | 28% | 8% | 9% |
| Appraisal Contract Cost | \$27,000 | \$40,000 | \$40,000 | \$35,500 |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey*

2.3 COMPUTER ASSISTED MASS APPRAISALS (CAMA)

IAAO’s *Standard on Mass Appraisal*, Section 6.3.2, Software, explains the appraisal district can internally develop CAMA software, adapted from software developed by other public agencies, or purchased (in whole or in part) from private vendors. The appraisal district must tailor it to adapt externally developed software to the requirements of the user’s environment. Each alternative has advantages and disadvantages. The appraisal district should have software designed to be easily modified and well-documented at both the appraiser/user and programmer levels.

CAMA software works simultaneously with various general-purpose software, typically including word processing, spreadsheet, statistical and GIS programs. These programs and applications must be able to share data and work together cohesively.



FINDING

Brewster staff does not fully use the CAMA system and cannot perform queries or ratio studies with the software.

IAAO’s *Standard on Mass Appraisal*, Section 6.3.2, Software, explains that the appraisal district can internally develop CAMA software, adapted from software developed by other public agencies, or purchased (in whole or in part) from private vendors. (Inevitably, the appraisal district will need to tailor it to adapt externally developed software to the requirements of the user’s environment.) Each alternative has advantages and disadvantages. The appraisal district should have software designed to be easily modified and well-documented at both the appraiser/user and programmer levels.

Brewster staff must contact the vendor to run any special queries for them. Although the CAMA system includes a ratio study analysis report, Brewster does not use this feature.

Insufficient training on using the CAMA software causes inefficiency. A lack of understanding of the ratio study program hinders the appraisal district’s ability to identify, sort, stratify and analyze sales data and central tendencies, which are essential for assigning accurate appraised values. This can result in inaccurate analysis, affecting property values.

RECOMMENDATION 4

Train staff to fully use the appraisal software system.

2.4 MAPPING AND/OR AERIAL PHOTOGRAPH

IAAO’s *Standard on Digital Cadastral Maps and Parcel Identifiers* (2015), Section 3.7, states basic information contained on maps should include parcel boundaries, identifiers, dimensions and area, subdivision or plat information, block and lot numbers, jurisdictional boundaries, locations and names of streets, railroads, rivers, lakes and other geographic features, situs addresses and geographic boundaries.

Comptroller Rule 9.3002 requires all appraisal offices and tax offices appraising property for ad valorem purposes to develop and maintain a system of tax maps covering the entire area of the taxing units for whom each office appraises property.

Tax maps should be drawn to scale and delineated for lot lines or property lines or both, with dimensions or areas and identifying numbers, letters, or names for all delineated lots or parcels. Each parcel must be assigned parcel identification numbers (PIN) and the PIN recorded on the corresponding appraisal card. The tax map system should be updated annually.

FINDING

Brewster’s maps do not provide the information specified in IAAO’s *Standard on Digital Cadastral Maps and Parcel Identifiers*.

IAAO’s *Standard on Digital Cadastral Maps*, Section 2, Introduction states cadastral maps for the entire jurisdiction, regardless of taxable status or ownership, are essential to the performance of assessment functions. Digital cadastral maps enable the assessor to access parcel location and information, reveal geographic relationships that affect property value and provide a platform for the visualization of data layers and analytical results more efficiently.

IAAO’s *Standard on Digital Cadastral Maps*, Section 3.4, Parcel Identifiers, recommends that each parcel polygon should be attributed with a unique identifier. The parcel identifier provides a common index for all property records. Each parcel should be keyed to a unique identifier or code that links the cadastral layer with files containing such data as ownership, building and land value, use and zoning.



IAAO’s *Standard on Digital Cadastral Maps*, Section 3.5, Map Products, advises the appraisal district to maintain a variety of additional map overlays which support the appraisal district’s work and other users such as municipalities or other taxing units.

Brewster’s maps include school district boundaries, abstract names and subdivision names.

Out of 75 sampled properties, the reviewer was unable to locate six (8 percent) on Brewster’s maps. Without complete GIS maps, Brewster’s staff relies on outdated paper maps which hinders their ability to complete appraisal review work timely.

RECOMMENDATION 5

Update appraisal district maps to reflect all properties.

2.5 RATIO STUDIES

An appraisal district should perform ratio study analyses to evaluate appraisal performance. Per IAAO’s *Standard on Ratio Studies*, there are several key uses of ratio studies including: measurement and evaluation of the level and uniformity of mass appraisal models, internal quality assurance and identification of appraisal priorities, determination of whether administrative or statutory standards have been met, determination of time trends and adjustment of appraised values between reappraisals.

Exhibit 13 presents Ratio Study Uniformity Standards indicating acceptable general quality.

EXHIBIT 13

Ratio Study Uniformity Standards

| Type of property - General | Type of property - Specific | COD Range* |
|--|--|------------------------------|
| Single-family residential (including residential condominiums) | Newer or more homogeneous areas | 5.0 to 10.0 |
| Single-family residential | Older or more heterogeneous areas | 5.0 to 15.0 |
| Other residential | Rural, seasonal, recreational, manufactured housing, 2–4 unit family housing | 5.0 to 20.0 |
| Income-producing properties | Larger areas represented by large samples | 5.0 to 15.0 |
| Income-producing properties | Smaller areas represented by smaller samples | 5.0 to 20.0 |
| Vacant land | N/A | 5.0 to 25.0 |
| Other real and personal property | N/A | Varies with local conditions |

Source: IAAO’s *Standard on Ratio Studies*

These types of property are provided for guidance only and may not represent jurisdictional requirements.

** Coefficient of Dispersion (CODs) lower than 5.0 may indicate sales chasing or non-representative samples.*



BREWSTER RATIO STUDIES

FINDING

Brewster does not conduct ratio studies by market area, neighborhood, property class, or stratum.

IAAO's *Standard on Ratio Studies*, Section 2.3, Uses of Ratio Studies, states the critical uses of ratio studies are as follows:

- i. measurement and evaluation of the level and uniformity of mass appraisal models
- ii. internal quality assurance and identification of appraisal priorities
- iii. determination of whether the appraisal district has met administrative or statutory standards
- iv. determination of time trends
- v. adjustment of appraised values between reappraisals

The appraisal district can use the final study to plan for the following year. In addition, it can conduct ratio studies as needed to evaluate appraisal procedures, investigate a discrimination complaint, or answer a specific question.

IAAO's *Standard on Ratio Studies*, Section 3.3, Stratification states Stratification divides all the properties within the scope of the study into two or more groups or strata. Stratification facilitates a complete and detailed picture of appraisal performance and can enhance sample representativeness.

Each type of property subject to a distinct level of assessment could constitute a stratum. Other property groups, such as market areas, school districts and tax units, could constitute additional strata.

The appraisal district should choose strata consistent with factors in the mass appraisal model. When the study's purpose is to evaluate appraisal quality, flexibility in stratification is essential. The general goal is for the appraisal district to identify areas where the assessment levels are too low or lack uniformity and property groups for which the appraisal district may require additional reappraisal work. In such cases, it is also highly desirable to simultaneously stratify based on more than one characteristic.

Stratification can help identify differences in appraisal levels between property groups. In large appraisal districts, stratification by market areas is generally more appropriate for residential properties. In contrast, stratification of commercial properties by either geographic area or property subtypes (e.g., office, retail and warehouse/industrial) can be more effective.

Brewster primarily conducts ratio studies before mailing value notices but does not use the CAMA system's ratio report capabilities. This limitation prevents Brewster from obtaining statistical measures of uniformity and stratification. The appraisal district performs ratio studies by market area but neglects to analyze by neighborhood, property class, or stratum.

An appraisal district is responsible for appraising property within its jurisdiction for ad valorem tax purposes for each taxing unit that imposes ad valorem taxes on property in the appraisal district (Tax Code Section 6.01(b)).

Ratio studies should be run by strata in order to identify issues that can occur within specific strata of a property category rather than all property in the category.

RECOMMENDATION 6

Conduct ratio studies by market area and neighborhood, property class or stratum.

**PTAD'S APPRAISAL DISTRICT RATIO STUDY (ADRS)**

Tax Code Section 5.10 requires PTAD to conduct a ratio study to measure the performance of each appraisal district in Texas at least once every two years and to publish the results.

The purpose of the Appraisal District Ratio Study (ADRS) is to measure the uniformity and median level of appraisals performed by an appraisal district within each major category of property.

To conduct the ADRS, PTAD applies appropriate standard statistical analysis techniques to data collected through the SDPVS required by Government Code Section 403.302.

The published report provides ratio study results for each appraisal district studied that year and includes:

- the median levels of appraisal for each major property category.
- the coefficient of dispersion (COD) around the median level of appraisal for each major property category; and
- other appropriate statistical measures.

Exhibit 14 shows the data from PTAD's Appraisal District Ratio Study for Brewster in 2021.

EXHIBIT 14

PTAD's Appraisal District Ratio Study, Brewster 2021

| Category | Number of Ratios** | 2021 CAD Reported Appraisal Value | Median Level of Appraisal | Coefficient of Dispersion | % Ratios within (+/-) 10 % of Median | % Ratios within (+/-) 25 % of Median | Price - Related Differential |
|-----------------------|--------------------|-----------------------------------|---------------------------|---------------------------|--------------------------------------|--------------------------------------|------------------------------|
| A. SINGLE-FAMILY RES | 218 | 552,177,093 | 1.01 | 17.89 | 36.24 | 73.39 | 1.05 |
| B. MULTI-FAMILY RES | 0 | 14,743,606 | * | * | * | * | * |
| C1. VACANT LOTS | 0 | 17,829,278 | * | * | * | * | * |
| C2. COLONIA LOTS | 0 | 0 | * | * | * | * | * |
| D2. FARM/RANCH IMP | 0 | 1,141,021 | * | * | * | * | * |
| E. RURAL-NON-QUAL | 88 | 107,721,318 | 0.97 | 44.81 | 12.50 | 40.91 | 1.61 |
| F1. COMMERCIAL REAL | 64 | 117,155,708 | 1.01 | 4.08 | 90.63 | 100.00 | 1.01 |
| F2. INDUSTRIAL REAL | 0 | 54,691,125 | * | * | * | * | * |
| G. OIL, GAS, MINERALS | 0 | 73,266 | * | * | * | * | * |
| J. UTILITIES | 7 | 145,025,715 | 0.95 | 19.67 | 57.14 | 71.43 | 0.84 |
| L1. COMMERCIAL PER | 6 | 43,823,939 | * | * | * | * | * |
| L2. INDUSTRIAL PER | 0 | 1,180,945 | * | * | * | * | * |
| M. OTHER PERSONAL | 0 | 9,389,510 | * | * | * | * | * |
| O. RESIDENTIAL INV | 0 | 0 | * | * | * | * | * |
| S. SPECIAL INVENTORY | 0 | 0 | * | * | * | * | * |
| OVERALL | 383 | 1,064,952,524 | 1.00 | 21.52 | 42.04 | 69.97 | 1.05 |

Source: Texas Comptroller of Public Accounts, *Appraisal District Ratio Study 2021 Tax Year Findings*

* Category result not calculated. Calculation requires a minimum of five ratios from either of the following:

- Categories representing at least 25 percent of total appraisal district category value.
- Five school districts or half the school districts in the appraisal district, whichever is less.

** Statistical measures may not be reliable when the sample is small.



FINDING

Brewster is not appraising property uniformly or equitably.

Ratio Study standards provide a means of measuring whether appraisal efforts have met appropriate expectations. To determine reappraisal priorities, appraisal districts should use ratio studies to measure the level of appraisal and uniformity of appraisal for the overall jurisdiction, for individual mass appraisal neighborhoods or market areas, by types of properties, or any other significant segment that assists in that determination.

The median measures the accuracy of an appraisal district’s appraisals in relation to the standard of 100 percent of market value. According to IAAO, the median is the appropriate measure of central tendency for evaluating appraisal performance. The median level of appraisal standard is 0.95-1.05 to indicate accurate market value appraisals. **Exhibit 14** shows Brewster has good median levels of appraisal overall and in each of the tested categories.

The Coefficient of Dispersion (COD) is a measure of appraisal uniformity. **Exhibit 13** shows the IAAO suggested COD standards. **Exhibit 14** shows that Brewster has a relatively high COD overall (21.52) and in Category A (17.89) and Category J (19.67) with a very high COD in Category E (44.81) and a low COD in Category F1 (4.08), indicating uniformity issues across major property types. These figures indicate higher variability in appraisal ratios, suggesting inconsistencies in valuation. This level of dispersion suggests the average deviation of the ratios from the median is excessive in certain property types, potentially affecting the reliability of the appraisal assessments.

The Price-Related Differential (PRD) is a measure of vertical equity, comparing the appraisal of higher valued properties to the appraisal of lower valued properties. IAAO states that anything outside of the PRD range of 0.98-1.03 indicates vertical inequity or treating higher and lower priced properties differently. **Exhibit 14** shows the PRD for Category F1 (1.01) to be within the appropriate range, suggesting that Brewster is treating higher and lower valued properties similarly in this category. The PRD for Category J (0.84) is lower than the IAAO suggested PRD range, indicating progressivity or that high valued properties are relatively over-appraised for this category. The overall PRD (1.05) and the PRD for Category A (1.05) and Category E (1.61) are higher than the IAAO suggested PRD range, indicating regressivity or that lower valued properties are relative over-appraised.

Because ADRS only reviews certain property categories, Brewster should perform its own ratio studies at a micro-level to determine which neighborhoods would benefit from full reappraisal or if a trend factor could be applied.

RECOMMENDATION 7

Use Brewster’s local ratio study results to make reappraisal decisions necessary to produce accurate values.

2.6 REAPPRAISAL PLAN

Tax Code Section 6.05(i) requires the appraisal district board of directors to develop a biennial reappraisal plan in even numbered years and to hold a public hearing to adopt the plan. The plan must indicate how the appraisal district will comply with Tax Code Section 25.18 which requires the reappraisal of all real and personal property in the appraisal district at least once every three years to ensure that all property is appraised at 100 percent of market value on Jan 1.

FINDING

Brewster’s reappraisal plan does not delineate market areas appropriately.



Tax Code Section 25.18 states:

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05(i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the appraisal district at least once every three years:
 - (1) identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps and property sketches;
 - (2) identifying and updating relevant characteristics of each property in the appraisal records;
 - (3) defining market areas in the appraisal district;
 - (4) identifying property characteristics that affect property value in each market area, including:
 - (A) the location and market area of property;
 - (B) physical attributes of property, such as size, age and condition;
 - (C) legal and economic attributes; and
 - (D) easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;
 - (5) developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
 - (6) applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
 - (7) reviewing the appraisal results to determine value.

Brewster’s market area definitions (school districts) in the 2023 to 2024 reappraisal plan do not include certain cities that should be recognized as market areas or submarkets. The cities and towns of Alpine, Marathon and Terlingua should be added as distinct market areas. While combining some areas may be necessary when sales data is limited, each market area should be analyzed separately.

Expanding market areas definitions will enhance the quality of the ratio studies, improving the statistical confidence of their values.

RECOMMENDATION 8

Delineate appropriate market areas in the reappraisal plan.

Section 3 – Categories of Valuation in the SDPVS

PTAD found Alpine ISD’s Categories A, D1 and E to be invalid in the years indicated in **Exhibit 15**. Because these property categories had invalid ratios in at least one of the three review years, these property categories are the basis of this TARP review.

PTAD found Categories B, C1, F1, F2, G, J and L1 in Alpine ISD to be valid and they are *not* included in the scope of this TARP review.

EXHIBIT 15

| SDPVS Invalid Property Categories 2020-22 | | | |
|---|-------------|-------------|-------------|
| ISD | 2020 | 2021 | 2022 |
| Alpine | A, D1 and E | A, D1 and E | A, D1 and E |

Source: Texas Comptroller of Public Accounts, [School District Property Value Study Final Findings](#)



3.1 CATEGORY A – SINGLE-FAMILY RESIDENTIAL PROPERTY VALUATION

The Comptroller’s *Texas Property Tax Assistance Property Classification Guide* states Category A property includes single-family residential improvements and land on which the improvements are situated. They may or may not be within the city limits or in close proximity to a city.

FINDING

Brewster does not have procedures in place for the valuation of mobile/manufactured homes.

IAAO’s *Standard on Mass Appraisal*, Section 4.6.2, Manufactured Housing, states the appraisal district can value manufactured or mobile homes in several ways depending on the local market and ownership status. Often, mobile homes are purchased separately and situated in a rented space in a mobile home park. In this case, the best strategy is to model the mobile homes separately from the land. At other times, mobile homes are situated on individual lots and bought and sold similarly to stick-built homes. The mobile homes may be intermixed with stick-built homes, particularly in rural areas. In these cases, they can be modeled like that for other residential properties and included in the same models, if the model includes variables to distinguish them and recognize any relevant differences from other homes (e.g., mobile homes may appreciate at a rate different from that for stick-built homes).

Although Brewster uses cost schedules to appraise mobile homes, these schedules have not been updated in several years. Brewster did not provide procedures for the valuation of mobile/manufactured homes. It is crucial to gather sales data and maintain current cost schedules to ensure valuations reflect the market.

RECOMMENDATION 9

Develop valuation procedures and cost schedules for manufactured homes and use ratio study results to annually review and update the schedules.

3.2 CATEGORY (D) D1 – QUALIFIED OPEN-SPACE LAND PROPERTY VALUATION AND CATEGORY D2 – FARM AND RANCH IMPROVEMENTS SPECIAL USE VALUATION

The Comptroller’s *Texas Property Tax Assistance Property Classification Guide* states Category D1 includes all acreage qualified for productivity valuation under Texas Constitution, Article VIII, 1-d or 1-d-1 and Tax Code Chapter 23, Subchapters C, D, E and H.

It also states Category D2 includes improvements, other than residences, associated with land reported as Category D1. These improvements include all barns, sheds, silos, garages and other improvements associated with farming or ranching.

FINDING

Brewster does not use properly calculated values for land designated as agricultural use.

Tax Code, Section 23.41 states land designated for agricultural use is appraised at its value based on the land’s capacity to produce agricultural products. The value of land based on its capacity to produce agricultural products is determined by capitalizing the average net income the land would have yielded under prudent management from production of agricultural products during the five years preceding the current year.



Brewster has not calculated net to land values since 2021 and continued to use the 2021 values in subsequent years, indicating that Brewster did not use properly calculated productivity value for all Category D1 properties. The reviewer was also unable to reproduce income and expense items. This resulted in statistically invalid values in Category D1 for 2020 to 2022.

An appraisal district should use properly calculated values on properties designated for agricultural use.

 **RECOMMENDATION 10**

Use properly calculated values for land designated as agricultural use.

3.3 CATEGORY E – RURAL LAND, NOT QUALIFIED FOR OPEN-SPACE APPRAISAL PROPERTY VALUATION

The Comptroller’s *Texas Property Tax Assistance Property Classification Guide* states Category E includes only rural land that is not qualified for productivity valuation and the improvements on that land, including residences. Appraisal districts may report any size tract in Category E.

As always, primary use is the determining factor in classifying property. If the land is used as residential inventory, commercial, industrial, or other purposes, classify the property by that use. Likewise, if the land qualifies as open-space land for productivity appraisal, the use determines its classification as Category D1. If the land does not fit in these other categories, report it in Category E.

 **FINDING**

Brewster does not conduct ratio studies regularly for vacant land properties.

IAAO’s *Standard on Mass Appraisal*, Section 4.5, Land Valuation, states that state or local laws may require the appraisal district to separate the value of an improved parcel into land and improvement components. When the appraisal district uses the sales comparison or income approach, an independent land value estimate can be subtracted from the total property value to obtain a residual improvement value. Some computerized valuation techniques separate total value into land and building components.

The appraisal district should annually review and adjust values. Each appraisal office must implement the plan for periodic reappraisal of property and the plan must provide for the reappraisal activities for all real and personal property in the appraisal district at least once every three years. The sales comparison approach is the primary approach to land valuation and is always preferred when sufficient sales are available. In the absence of adequate sales, the appraisal district can use other techniques in land appraisal including allocation, abstraction, anticipated use, capitalization of ground rents and land residual capitalization.

Brewster has limited land sales data and should incorporate multiple years of sales data in its analysis to identify trends in land values and adjust schedules accordingly.

Collecting sales data and performing ratio studies analysis regularly is essential for determining reliable market trends and developing market values.

 **RECOMMENDATION 11**

Maintain market value for vacant land properties and review and update land schedules annually.



APPENDICES

APPENDIX 1

Appraisal District Budget

| | 2022 | 2021 | 2020 | 2019 | Tier 3 Average 2019-2022 | Tier 3 Average 2022 |
|--|--------------|--------------|--|--------------|-----------------------------|------------------------|
| Total Budget (Excluding Collections) | \$560,752 | \$561,432 | \$670,238 (Includes \$115,000 retained income) | \$521,392 | \$512,391 | \$547,673 |
| Total Property Taxes Levied (All Jurisdictions) | \$17,374,978 | \$16,495,441 | \$15,948,059 | \$16,624,126 | \$60,025,749 | \$50,052,924 |
| Does the appraisal district collect taxes? | No | No | No | No | N/A | N/A |
| Number of Taxing Units Appraisal District Collects For (If Applicable) | N/A | N/A | N/A | N/A | N/A | N/A |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey*

APPENDIX 2

Appraisal District Staffing

Appraisal District Staff

| | 2022 | 2021 | 2020 | 2019 | Tier 3 Average 2019-2022 | Tier 3 Average 2022 |
|-----------------|------|------|------|------|-----------------------------|------------------------|
| Full Time Staff | 6 | 6 | 6 | 6 | 4 | 4 |
| Part Time Staff | 0 | 0 | 0 | 0 | N/A | N/A |

Appraisal Staff

| | 2022 | 2021 | 2020 | 2019 | Tier 3 Average 2019-2022 | Tier 3 Average 2022 |
|--------------------------|----------|----------|----------|----------|-----------------------------|------------------------|
| Full Time Appraisers | 6 | 4 | 5 | 6 | 3 | 3 |
| Lowest Appraiser Salary | \$30,000 | \$28,000 | \$28,500 | \$31,277 | \$40,079 | \$39,505 |
| Highest Appraiser Salary | \$52,000 | \$45,080 | \$60,779 | \$56,779 | \$46,417 | \$48,041 |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey*



APPENDIX 3

Appraisal District Parcel Information

| Brewster | 2022 | 2021 | 2020 | 2019 |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Parcel Count* | 20,101 | 20,078 | 19,862 | 19,811 |
| Number Taxing Units | 7 | 7 | 7 | 7 |
| Parcels per Appraisal Staff** | 3,342 | 5,004 | 3,816 | 3,293 |
| Total Market Value Certified | \$2,117,581,457 | \$1,943,134,826 | \$1,835,013,985 | \$1,853,623,959 |

Parcels per Appraisal Staff Averages

| Parcels | Parcels/Appraiser |
|------------------|--------------------------|
| Under 10,000 | 5,300 parcels/appraiser |
| 10,001 – 70,000 | 6,400 parcels/appraiser |
| 70,001 – 200,000 | 6,700 parcels/appraiser |
| Over 200,000 | 7,100 parcels/appraiser |

Source: Texas Comptroller of Public Accounts, *Appraisal District Operation Survey and Electronic Appraisal Roll Submission*

* Parcel count includes contracted appraisal services.

**Parcels per appraiser does not include contracted appraisal services.

Texas Comptroller of Public Accounts
Publication #96-1786-C022 – February 2025

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