PERFORMANCE AUDIT

DEPARTMENT OF REVENUE

PROPERTY VALUATION AND EQUALIZATION DIVISION

Report to the Arizona Legislature
By the Auditor General
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December 11, 1995

Members of the Arizona Legislature

The Honorable Fife Symington, Governor

Mr. Harold Scott, Director
Arizona Department of Revenue

Transmitted herewith is a report of the Auditor General, A Performance Audit of the Department of Revenue (DOR) Property Valuation and Equalization Division. This report is in response to a May 5, 1993, resolution of the Joint Legislative Audit Committee. The performance audit was conducted as part of the sunset review set forth in A.R.S. §§41-2951 through 41-2957.

This is the first in a series of four reports to be issued on the Department of Revenue. The report addresses the need to improve Arizona's property tax system to make it less confusing to taxpayers. In addition, DOR needs more authority to enforce equalization and consistency in property tax values. Further, DOR needs to continue to improve its Centrally Valued Property audit function to ensure that a sufficient number of productive audits are performed and that the audits follow auditing standards. Finally, DOR can do more to ensure that its automated property tax data is reliable, and that effective records retention and disaster recovery plans are developed and implemented.

My staff and I will be pleased to discuss or clarify items in the report.

This report will be released to the public on December 12, 1995.

Sincerely,

Douglas R. Norton
Auditor General

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SUMMARY

The Office of the Auditor General has conducted a performance audit of the Department of Revenue (DOR) Property Valuation and Equalization Division, pursuant to a May 5, 1993, resolution of the Joint Legislative Audit Committee. The audit was conducted as part of the sunset review set forth in Arizona Revised Statutes (A.R.S.) §§41-2951 through 41-2957 and is the second in a series of four audits of the Department.

Arizona's constitution and statutes require that similarly valued properties be assessed and taxed consistently. Although much of this work is performed by elected county assessors, A.R.S. §42-141.A(1) specifies that DOR shall

> *"...[E]xercise general supervision over county assessors in the administration of the state property tax laws for the purpose of insuring that all property is uniformly valued for state property tax purposes."*

It is important that property values be consistent and accurate since property value is the basis for apportioning the cost of government. When similar properties are not valued consistently, the tax burden is not fairly distributed. Further, equity and consistency are important because the formulas that distribute state funds such as state equalization aid for public education are based on property values.

Arizona's Property Tax System Could Be Improved (See pages 6 through 13)

Arizona's property tax system is confusing and can mask inequitable property tax appraisals. Arizona's 82 percent property valuation standard is too low and should be made equivalent to market value. Currently, Arizona appraises and then taxes property based on 82 percent of a home's market value. This low valuation standard is not only confusing, but it can have the effect of hiding inequitable appraisals from property owners. Because property owners are most familiar with the market value of their property, they may mistakenly think that any appraised value lower than the market value is appropriate, whether the appraised value is too high or not. For example, an owner of a $100,000 home could be appraised at $95,000 instead of the more appropriate $82,000 level and not become alarmed because $95,000 is still less than market value. The effect, however, is

that this homeowner would pay more property tax than necessary. The International Association of Assessing Officers and other experts recommend appraising property at its full market value. To do so, however, will require a change in Arizona's statutes.

The State should eliminate a second valuation: the limited property value portion of the property tax. Added in 1980 to limit increases in property taxes, this component adds further confusion for the taxpayer and is unnecessary. Other controls, such as levy limits, have subsequently been put in place to control property tax growth, rendering the limited property valuation obsolete.

Finally, DOR should consider redesigning Notice of Valuation cards to include more information, such as tax impact statements, to improve understanding of the property tax.

DOR Needs More Authority to Enforce the Equity and Uniformity of Property Values (See pages 14 through 20)

DOR has limited authority to ensure that property is valued equitably and consistently in Arizona. DOR can issue equalization orders to county assessors when the median value of properties in an area is significantly above or below the State's adopted standard of 81 or 82 percent of full market value. The equalization order's intent is to equalize property values **between** different areas in the State to help ensure that the property tax burden is shared fairly statewide. If areas are not equalized, school districts in one area of the State, for example, may receive more or less state aid to education than is appropriate. To help ensure that the property tax burden is shared fairly by property owners **within** an area, DOR can request that a county assessor reappraise properties within a specific area when property values vary significantly. This helps ensure that property owners within an area are paying their fair share of property taxes relative to everyone else within that area.

DOR's efforts to achieve property value equity between areas have had limited success. DOR has limited authority to enforce equalization and no authority to enforce reappraisals. DOR's equalization enforcement options are weak (not allowing county assessors to issue property valuation notices) or not practical (filing suit to remove the county assessor from office). Therefore, in an attempt to work with county assessors to effect equalization, DOR tried a different approach to equalization in 1991 and 1993, one which placed more trust in county assessors to address property appraisal problems. Previously, DOR issued equalization orders when problems were identified. Under the new approach, equalization orders were not issued if county assessors wrote a letter of intent to comply. Unfortunately, county assessors did not equalize in all cases, with compliance dropping off to 57 percent in 1991 and 1993, as compared to 87 percent compliance in 1989.

In addition, little has been done to address the widespread problems with the consistency of property values within areas of the State. For the last three equalization periods (1989, 1991, and 1993), approximately 96 percent of the commercial property areas, 66 percent of the vacant property areas, and 27 percent of the residential property areas in the State suffered from problems with the consistency of values. In these instances, statutes only allow DOR to "request" county assessors to reappraise properties within the areas where property value consistency problems exist.

Other states provide their departments with the authority to withhold state funds until equalization or consistency problems are addressed. The Legislature should consider providing DOR the enforcement authority needed to help ensure that all areas of the State and individual property owners pay their fair share of taxes.

Improved Methods Needed for Equity and Consistency Analyses (See pages 22 through 24)

DOR can improve its assessment of equity and property value consistency by adopting some additional methods and revising others. DOR currently cannot take equalization action on those areas of the State that do not have a sufficient number of property sales during a specified time period. When areas are not subject to potential equalization actions, any potential problems with property owners paying more or less than their fair share of taxes are not addressed. For equalization years 1989, 1991, and 1993, 244 out of 745 total areas were not able to be subject to potential equalization actions. When a sufficient number of property sales during a specified time period is not available, the International Association of Assessing Officers (IAAO) recommends other methods be used when possible, such as extending the time period from which sales are drawn, to generate enough data to analyze.

DOR also needs to adjust and adopt statistical methods to help ensure the validity of its equity and consistency analyses. To assess equity and the consistency of property values, DOR performs sales ratio studies. A part of this analysis includes eliminating properties that have extremely high or low sales ratio values. DOR's current practice excludes all sales ratios above or below certain fixed points. This is appropriate, according to IAAO standards, if no more than 5 percent of the sales ratios are discarded. DOR, however, does not check how much data is eliminated and we found, in one instance, that 19 percent of the sales ratios were discarded. Eliminating too many sales ratios could skew the results that DOR uses to assess equity and consistency. Finally, DOR needs to utilize a statistical

reliability measure when consistency is good to help ensure that the results of its sales ratio analyses accurately portray the characteristics of the areas being evaluated and equalization actions are supported.

DOR'S Centrally Valued Property Audit Function Needs to Be Improved (See pages 26 through 29)

While centrally valued properties (CVP) account for approximately 26 percent of the total tax base in the State of Arizona, the DOR CVP audit function has done little to ensure that information reported by these taxpayers is accurate and complete. DOR, rather than the 15 county assessors, values properties such as utilities, mines, railroads, airlines, and pipelines that typically lie within two or more counties or states. We found that DOR's audit function has been ineffective. Only 16 audits were performed between September 1993 and March 1995. Of those, only two were finalized with the taxpayer. DOR has not developed any performance measures to evaluate the effectiveness of this audit function. In addition, auditors have not incorporated or utilized professional auditing standards.

DOR stated that CVP productivity problems were due to initial misclassification of CVP auditor positions. DOR has since reclassified one position and has developed a written audit program that addresses some auditing standards. The Department, however, lacks needed statutory authority to assess back taxes, penalties, and interest if DOR determines that the CVP taxpayer has underreported property tax information.

DOR Needs Better Controls Over Property Tax Data (See pages 31 through 33)

Controls over property tax data are inadequate. DOR needs to assist individual counties in developing adequate controls over the input of property tax data into county computer systems. Even though DOR relies on this data, DOR has not issued data control procedures to the counties. In addition, DOR has few controls in place to review and ensure the validity of data received from the counties. In addition, DOR's own record retention policy for property tax information is unclear. Further, DOR does not have an appropriate disaster recovery plan. In the event of any major software or hardware failure, DOR may not be able to perform its required functions.

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INTRODUCTION AND BACKGROUND

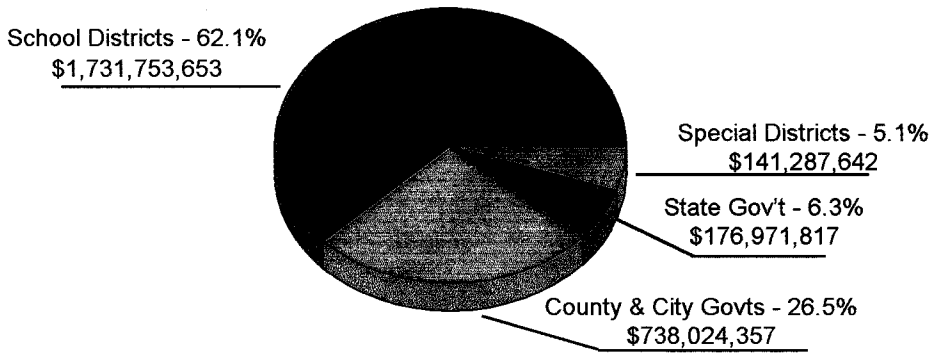
The Office of the Auditor General has conducted a performance audit of the Arizona Department of Revenue (DOR) Property Valuation and Equalization Division, pursuant to a May 5, 1993, resolution of the Joint Legislative Audit Committee. This audit is the second in a series of four audits. The audits are conducted as part of the sunset review set forth in Arizona Revised Statutes (A.R.S.) §§41-2951 through 41-2957.

Property Tax Funds Schools and Government

Property tax revenues benefit school districts, special districts, and county, city, and state governments. In calendar year 1994, nearly $2.8 billion in property taxes was levied in the State of Arizona. These taxes were distributed to school districts, special districts, and county, city, and state governments. Table 1 illustrates that school districts are the primary recipients, receiving approximately 62 percent of property tax revenues. Cities and counties receive approximately 27 percent, with special districts and the State receiving the remainder.

Table 1

Property Tax Revenue Distribution
Calendar Year 1994



Source: Auditor General staff analysis of data contained in the Arizona Department of Revenue 1994 Annual Report.

The Property Tax System Must Be Equitable

To ensure fairness and taxpayer confidence, the property tax system must distribute the tax burden equitably. Arizona's constitution and statutes require that similarly valued properties be assessed and taxed consistently. A.R.S. §42-141.A(1) specifically states that the DOR shall:

> *"[E]xercise general supervision over county assessors in the administration of the state property tax laws for the purpose of insuring that all property is uniformly valued for state property tax purposes."*

It is important that property values be consistent and accurate since property values are the basis for apportioning the cost of government. When similar properties are not valued consistently, the tax burden is not fairly distributed. Further, equity and property value consistency are important because the formulas that distribute state funds such as state equalization aid for public education are based on property values.

Counties and DOR Have Significant Roles in the Property Tax System

Arizona's counties and DOR administer the property tax system in the State. Elected county assessors are primarily responsible for establishing accurate, equitable, and complete property appraisals based on market value. Although the State of Arizona does not receive a significant portion of property tax collections, the Arizona Department of Revenue plays a significant role in the administration of the property tax system. The Department has the authority and responsibility to ensure that all property is consistently valued. Further, when inconsistency exists, the Department may request the assessor to conduct field appraisals in the area of the discrepancy. This request could come in the form of an equalization order or a reappraisal order. However, in extreme cases the Department can pursue a statutory special action in the courts if the assessor fails to follow a request it has made.

The Department assists and oversees the county assessors to ensure that all property is consistently valued. Some examples of important assistance responsibilities include:

- **Standard Appraisal Models** — These models assist the county assessors in determining property values. For example, the Department develops mass appraisal models that provide the assessors with methods for collecting, analyzing, and processing data

to produce values. Further, other standard appraisal methods, including the construction cost system and land system, are developed and maintained by the Department for the assessors' use.

- **Technical Assistance** — The Department provides ongoing technical assistance to individual counties on valuation and assessment issues.

- **Direct Staffing** — The Department provides direct staffing for projects such as recanvassing and updating tax rolls. For example, in calendar year 1994, the Department assisted Cochise County with the Bisbee historic property recanvassing project. Currently, the Department is extensively assisting Maricopa County in adding new properties to the tax rolls.

The Department also has general supervisory authority over the 15 county assessors. This oversight responsibility includes performing sales ratio studies, conducting audits of county assessors' offices, and administering a training and certification program for county property appraisers.

- **Sales Ratio Studies** — These studies compare, for a given time period, a parcel's appraised value (established by the county assessor) to its selling price. Moreover, the study provides a measure of the quality of appraisals and the inequity between appraised values that may exist within a county or statewide. In addition, the ratio studies are an internal quality control procedure for both the Department and the county assessors. The Department can use the sales ratio studies to determine if reappraisals are needed.

- **County Assessor Audits** — The Department conducted management audits of six county assessors' offices from 1992 through 1994. These audits included reviews of the counties' valuation processes, records retention systems, and operating procedures.[1]

- **Training and Certification Programs** — The Department's property appraiser certification program ensures that properties are appraised using similar techniques statewide for property tax purposes. The Department also provides continuing education and maintains required standardized manuals for all county assessors and their staff.

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[1] After 1994, DOR stopped audits of the county assessors until a new audit approach is developed.

In addition to assistance and oversight, the Department is required by statute to annually value 13 industries within the State. These industries, called centrally valued properties (CVP), include all utilities, railroads, airlines, pipelines, water companies, mines, and other complex or geographically dispersed properties. The Department determines the values of these industries using information provided by the taxpayer. Once the industries are valued, the Department notifies the counties of the values to be entered on their tax rolls. Counties use tax roll values to levy and collect property taxes.

The Department also audits the centrally valued properties. The audit function should ensure that the taxpayer-reported information DOR uses in its valuation process is valid and complete. The audit function should also verify DOR's original valuation and collect any additional taxes owed.

Organization, Budget, and Staffing

The Property Valuation and Equalization Division is divided into two sections: Valuation and Assessment Standards and Equalization. Most of the Division's staff are located at DOR's main office in Phoenix; however, staff are also located in field offices around the State.

In fiscal year 1994-95, the cost to appraise property and administer the property tax system statewide was approximately $28.7 million, and involved nearly 800 FTEs. The Property Valuation and Equalization Division was appropriated approximately $3.3 million of General Fund monies and 77 FTEs for Division operations. According to the 15 county assessors, in fiscal year 1994-95 they employed a total of 720 FTEs and spent approximately $25.4 million to establish property values within their counties.

Audit Methodology and Scope

Our audit work concentrated on the role that the DOR Property Valuation and Equalization Division plays in the Arizona property tax system. This audit does not specifically address the various county assessor roles in the property tax system.

We utilized a variety of methods in our analysis including extensive interviews with all 15 county assessors, property tax experts within Arizona and in other states, and a review of the 1989 Fiscal 2000 study conducted by the Arizona Joint Select Committee on State Revenues and Expenditures.

As DOR has statutory authority to ensure the consistency of appraised property, we determined the adequacy of the Department's role by examining the last three equalization sales ratio studies performed by DOR. An equalization sales ratio study is generated every two years; therefore, we attempted to analyze the equalization process back to calendar year 1989.

Our report presents findings and recommendations in five areas:

- The need to make Arizona's property tax system less confusing and more equitable for taxpayers.
- The need for more authority to enforce the equity and consistency of property values.
- The need to improve statistical analyses of equity and consistency.
- The need to improve the CVP audit function.
- The need to improve the controls over property tax data.

The audit was conducted in accordance with government auditing standards.

The Auditor General and staff express appreciation to the Director of the Department of Revenue, DOR staff, and the 15 county assessors for their cooperation and assistance during the audit.

FINDING I

ARIZONA'S PROPERTY TAX SYSTEM COULD BE IMPROVED

The property tax system is confusing to taxpayers and can mask significant tax inequities. Under the current system, property is appraised at 82 percent of full market value. Because homeowners and other property owners are most familiar with the full market value of their property, they may assume any appraised value below full market value — even when it is an overappraisal — is in their favor. The low valuation standard of 82 percent can also mask inequities between taxpayers' tax bills. In addition, the limited property value component of the property tax system should be repealed. Created by a constitutional change in 1980 in response to concerns of rapidly escalating property values, it has been supplanted by statutory limits on how much local governments can increase their annual tax levies. DOR can assist county assessors in making the property tax system less confusing by redesigning annual Notice of Valuation cards to include more information regarding property appraisals and the projected impact on property taxes.

Property Tax Considered Most Confusing Tax

Many property owners in Arizona lack a clear understanding of how the property tax system works. Poor public awareness is understandable since Arizona's property tax system is among the most complex in the nation.

A 1990 national poll commissioned by a tax research foundation found that taxpayers ranked the property tax as the most unfair tax. One property tax expert believes taxpayers generally have a low opinion of the property tax because they lack a clear understanding of how the system works. For example, he points out that few property owners understand the jargon of assessed value, assessment ratios, equalization, tax levies, and other aspects of the property tax system and its administration. As a result, few taxpayers understand the relationship between property taxes and assessment, which in many cases can lead to property owner complaints and unnecessary appeals.

Arizona's counties and DOR administer the property tax system in the State. Elected county assessors are primarily responsible for establishing accurate, equitable, and complete property appraisals based on market value. As shown in Table 2 (see page 7), county assessors

Table 2

Process for Calculating Property Tax

Step 1: Estimation of Property's Value

County Assessor estimates a property's value using the following appraisal models. [a]

- Cost Approach Appraisals
- Market Comparison Approach
- Income Approach Appraisals

[a] The appraisal models, specified above, calculate the property's full cash value at 82% (residential and vacant land) or 81% (commercial property) of the market value.

Step 2: Determination of Property's Legal Class

County Assessor determines the property's legal class (from among 12 current property classes) and selects the corresponding assessment ratio (ranging from 1 to 100%).

Step 3: Calculation of Property's Assessed Value From Full Cash Value[b]

County Assessor calculates the property's assessed value by this formula:

Appraised Value X Appropriate Assessment Ratio = Assessed Value

[b] The assessed value is derived from Full Cash Value and is the basis for secondary property taxes such as budget override levies and service of bonded indebtedness.

Step 4: Calculation of Property's Assessed Value From Limited Property Value[c][d]

County Assessor uses a statutory formula to calculate the property's limited property value, which is multiplied by the appropriate assessment ratio.

[c] The assessed value derived from limited property value is the basis for primary property taxes such as general operating and maintenance expenses of jurisdictions.

[d] Limited property value is defined as the previous year limited property value increased by either 10 percent or 25 percent of the difference between the previous year limited property value and the current full cash value, whichever is greater.

Source: Auditor General staff analysis of process for calculating property tax.

rely on standard appraisal techniques such as market comparisons, replacement cost, and the income approach to estimate a property's full cash value for property tax purposes. Assessors determine the property's classification from among the 12 current property classes and calculate the property's assessed value by multiplying the appraised value by the corresponding assessment ratio. In addition, assessors in Arizona need to make additional calculations to determine an assessed value from the limited value for each property which is used in determining the primary property taxes. When all properties are assessed and the taxing jurisdiction has determined the amount of revenue needed to fund operations during the fiscal year, the jurisdiction levies a tax rate on assessed value to cover planned expenditures.

Many people familiar with Arizona's property tax system, including property tax experts, current and former DOR administrators, and county assessors, believe it is unnecessarily complex. Many people we interviewed agreed that, as a result of the complexity, the vast majority of property owners are unfamiliar with how Arizona's property tax system works. During our review, we identified several factors that appear to cause confusion among property owners, including a statutorily mandated property valuation standard that is well below full market value, and the limited property value.

Arizona's Property Valuation Standard Can Mask Inequities

Arizona's property valuation standard is confusing to taxpayers and can mask significant tax inequities. Property valuation standards are used to ensure that property values are consistent at the local, county, and state level. Arizona's use of a standard that is well below full market value, however, confuses property owners and may perpetuate property tax inequities. To make the property tax system more understandable and equitable, Arizona should adopt a property valuation standard that is closer to full market value.

Background — Arizona's constitution and statutes require that all property be appraised accurately, consistently, and at full cash value (FCV). FCV is synonymous with market value. According to the International Association of Assessing Officers (IAAO), market value is defined as the most probable price that a property would sell for in a competitive and open market, assuming that the buyer and seller are acting knowledgeably, sufficient time is allowed for the sale, and price is not affected by special influences. Although market value is equivalent to full cash value in Arizona, A.R.S §42-141.C requires that DOR target a median full cash value of 82 percent of the recent sales price for comparable residential property and vacant land and a median of 81 percent for commercial prop-

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(1) The 82 and 81 percent property valuation standards are used to determine the level or overall ratio at which properties are appraised in individual market areas, across counties, and throughout the State.

erty.[1] Since it is not possible for a mass appraisal system like that used in Arizona to value all properties at exactly 82 or 81 percent of their recent sales prices, assessors are given a 10 percent "window"[1] on each side of the 82 and 81 percent target (74 to 90 percent for commercial property and 73 to 89 percent for residential and vacant property) to account for any mass appraisal error.

The 82 percent target is no longer valid — The 82 percent target, however, is no longer methodologically valid. The median target of 82 percent was established to account for various factors at work in the Arizona real estate market in the 1980s such as high interest rates and a sluggish real estate market. However, with improved economic conditions, several DOR reports since 1990 have found the 82 percent target no longer appropriate and recommended that the property valuation target be moved closer to full market value. A review of the factors that make up the 82 percent standard found that two adjustments, abnormal time on the market and a second mass appraisal error adjustment, were not necessary. Two other adjustments, for creative financing and personal property, should be made on a per-parcel basis, rather than across the board for all properties as is currently done. Correcting these problems would result in a methodologically correct valuation standard of 100 percent with a 10 percent allowance for mass appraisal error. A more detailed analysis of these factors is found in the Appendix (see pages a-i through a-ii).

A low valuation standard can mislead property owners and mask inequities — Arizona's property valuation target of 82 percent for residential and vacant land and 81 percent for commercial property can mislead property owners and mask significant tax inequities. Property owners tend to be most aware of the full market value of their property and may not understand that the appraised value is different. A 1993 study commissioned by DOR found that even when there is relatively consistent appraisal, more than 10 percent of the properties will be overappraised by as much as 15 to 25 percent and nearly another 10 percent of the properties will be overappraised by more than 25 percent. In addition, an equal number of properties will be similarly undervalued. Further, the study concluded that while some taxpayers are being overappraised, and therefore overtaxed, the low property valuation target helps to keep most properties well under market value, which is likely to prevent most property owners from knowing their appraisals are incorrect. For example, with a median property valuation target of 82 percent and good uniformity, it is possible that two residential properties in Maricopa County, each with a sales price of $117,000, could have significantly different appraised values, ranging from $81,549 to $110,331, and significantly different property tax bills, ranging from $1,018.55 to $1,378.03.[2] However, both property owners may think their property is under-appraised because both appraised values appear to be below market value.

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(1) The 10 percent "window" equates to 10 percent of the 82 percent and 81 percent targets, or 8.2 and 8.1 percentage points, respectively.

(2) With a property valuation target of 82 percent, a home with a sales price of $117,000 should have an appraised value of $95,940 (.82 x $117,000). If the home is underappraised by 15 percent the appraised value would be $81,549 (.85 x $95,540). A home of the same value which is overappraised by 15 percent would have an appraised value of $110,331 (1.15 x $95,540).

Several property tax experts we spoke with agree that a property valuation standard well below market value, like that used in Arizona, can confuse property owners and allow tax inequities to continue. One expert referred to the low standard as a "fudge factor," whereby most properties are appraised at a level well below market value to reduce the volume of taxpayer appeals. In fact, some experts believe assessors generally have a natural inclination to keep values low to minimize appeals. Despite this, however, several county assessors in Arizona told us that the current property valuation standard is too low and that it needs to move closer to full market value.

Arizona should adopt a better valuation standard — To make the property tax system less confusing and more fair, Arizona should raise its property valuation standard closer to full market value. IAAO and other property tax experts support using a valuation standard closer to market value. Moreover, most states that have adopted sales ratio standards use a property valuation standard closer to market value.

According to the IAAO and other experts, state property tax systems should use a median property valuation standard that approximates full market value with a window of 10 percent on each side. According to the IAAO, *"[T]he overall level of appraisal of the jurisdiction and each major class of property should be between .90 and 1.10, although jurisdictions may set more stringent standards."* Experts believe that this standard helps ensure that legitimate appraisal errors are not concealed by low appraisals overall, while making reasonable allowances for errors caused by appraising many properties in a short time. Although some assessors are concerned that changing the standard would significantly increase appeals, several other assessors told us that while appeals would probably increase in the short-term, they would most likely drop off as property owners better understood the system. Similarly, a recent DOR commissioned report indicated that moving the standard closer to market value should not overburden the county assessors with taxpayer appeals.[1]

Raising the property valuation standard closer to full market value could cause a shift in the property tax burden. To ensure that the property tax burden is appropriately distributed, taxing authorities and the Legislature could consider adjusting property tax rates to compensate for an increase.

Setting the valuation standard at full market value (with a window of plus or minus 10 percent) would bring Arizona in line with the IAAO standards and many other states. Twenty of the 30 states with appraisal systems similar to Arizona use this or a stricter standard. Some states, including Colorado and Iowa, set the valuation standard at full market value with a window of plus or minus 5 percent. A higher standard should pro-

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[1] Gloudemans, Robert J., *"Analysis and Recommendations on Sales Ratio Standards,"* (prepared for the Arizona Department of Revenue), January 15, 1993.

vide property owners with more meaningful information, which should enable them to monitor the accuracy of their appraisals more easily and seek correction of appraisals that are too high in comparison to other properties. In fact, experts have found that higher appraisal levels contributed to greater consistency of appraisals overall in several states, including Minnesota, Virginia, and Wisconsin.

Limited Property Value Is Unnecessary

Since 1980 Arizona has had two distinct valuation bases for each parcel of property: full cash value and limited property value. Although the creation of limited property value was intended to restrict the growth in property taxes, other measures such as levy limits have made it unnecessary. To simplify the property tax system, the Legislature should consider eliminating limited property value.

In 1980 the Arizona Legislature proposed the creation of a second form of property valuation called limited property value. The Legislature was concerned with an initiative advocating property tax reforms akin to those found in California's Proposition 13, which effectively froze property taxes for established homeowners. Arizona voters, anxious to limit the effect of inflation on property taxes, approved the constitutional change creating limited property value in a special election in June 1980. Limited property value is a reduced representation of full cash value and is the basis for calculating primary property taxes, which account for the majority of the property tax burden.

Limited property value confuses property owners — The concept of limited property value is confusing to taxpayers. Limited property value is defined as the previous year limited property value increased by either 10 percent or 25 percent of the difference between the previous year limited property value and the current full cash value, whichever is greater. In 1983, just three years after the creation of limited property value, a study conducted by the Governor's Task Force on Assessment Practices recognized that property owners do not fully understand the dual value system of full cash and limited property values. Similarly, a recent DOR study found that having two taxable values for each property substantially complicates the property tax system. Many county assessors told us that having both a full cash value and a limited property value confuses property owners and requires assessors and their staff to spend valuable time and resources explaining the concept to taxpayers. In addition, some county assessors told us that a dual valuation system increases the chance for administrative and clerical errors, which, if left uncorrected, could lead to property tax rates being levied on inaccurate values.

Other means of constraining property taxes exist — Many people familiar with Arizona's property tax system agree that limited property value is not needed as there are other mechanisms that limit the effect of rapid increases on property taxes. A 1989 report of the Joint Select Committee on State Revenues and Expenditures recommended simplifying

Arizona's property tax system by eliminating the distinction between full cash value and limited property value. In addition, some experts question the value of having a dual valuation system, since the difference between limited property value and full cash value for property in most counties is negligible. According to data from DOR, limited property value statewide was approximately 97 percent of full cash value during tax year 1994. The Committee and property tax experts believe existing constitutional levy limits, which limit the increase of property tax levies to 2 percent over the previous year, are effective in restricting the growth in property taxes.

More Can Be Done to Improve Public Awareness

To help improve public awareness of the property tax system, DOR should help county assessors provide more information to property owners. Specifically, DOR could redesign Notice of Valuation cards to include more information regarding property appraisals and the projected impact on property taxes.

Notice of Valuation cards could be improved — Currently, DOR provides each county assessor Notice of Valuation cards, which assessors use to notify property owners of the proposed valuation of each parcel of real property located in the county. Notice of Valuation cards contain critical information on the property including the parcel number, legal property class, current and previous year's full cash value and limited property value, the net assessed value, and other important information. We found, however, that the Notice of Valuation cards do not provide the property owner with adequate information on the property's total appraised value expressed in terms of full market value. According to both IAAO standards and property tax experts, property owners need to have clear information on how assessed value relates to market value when the two differ. According to one expert, providing taxpayers with more information should enable them to better monitor their assessments and allow them to "detect and seek corrections of incorrect assessments." Moreover, other states that have property valuation standards below market value, such as Illinois, provide property owners with information on the notice cards regarding their property's full market value.

Property owners should receive tax impact statements — In addition, DOR could help county assessors improve public understanding of the property tax system by redesigning Notice of Valuation cards to include tax impact statements for property owners. Tax impact statements provide each property owner with useful information on how property tax bills are calculated. According to IAAO and other experts, tax impact statements are useful because they help property owners understand what their property tax payment will be, based on proposed local budgets, and how it compares to their previous year's tax bill. Several states, including Florida and Utah, have strong truth in taxation

laws that provide property owners with detailed information on their property taxes. According to officials from these states, tax impact statements have been successful in improving public understanding of the property tax system.

Redesigning the annual Notice of Valuation card to include additional information will require some DOR staff and computer programming time. In addition, since the redesigned notice may be larger than the current notice, counties may have higher printing and postage costs. DOR should work with county assessors to ensure that the redesigned notice includes useful information and is cost-effective.

RECOMMENDATIONS

1. To improve the property tax system, the Legislature should consider taking steps to make the system less confusing. Specifically:

    a. The Legislature should consider amending A.R.S. §42-141.C to replace the current property valuation standard with the IAAO recommended valuation standard of .90 to 1.10 of full market value.

    b. The Legislature should consider eliminating limited property value. This would require a constitutional amendment and a public vote.

2. To improve public awareness of the property tax system, DOR should assist county assessors in providing property owners with better information on their assessments.

FINDING II

DOR NEEDS MORE AUTHORITY TO ENFORCE THE EQUITY AND CONSISTENCY OF PROPERTY VALUES

Homeowners, other property owners, counties, local governments, schools, and the State can be impacted financially when the property tax system is not administered to ensure equity and consistency. A two-step approach is necessary to ensure that property values between different areas of the State, as well as within the same area, are equitable and consistent. DOR's recent approach to helping ensure equity between different areas of the State appears to have been less effective than past efforts, and the process suffers from lack of enforcement authority if county assessors do not comply with the Department's orders to equalize property values. In addition, problems with the consistency of property values exist within geographic areas of the State, but DOR has little authority to address those problems.

Arizona statutes and DOR's own administrative rules require the Department to ensure the equity and consistency of property values. As indicated in Finding I, equity and consistency are paramount to ensure taxpayers are treated fairly and have confidence in the property tax system. The Department uses sales ratio studies as the basis for ensuring equity and consistency. Sales ratio studies compare county assessors' appraised property values to the properties' most recent sales prices. The Department compares the results of these studies to established standards to make determinations concerning the equity and consistency of values of various property types in specific areas of the State. DOR is then required to take action to remedy any problems.[1]

Two-Step Process for Determining Equity and Consistency

Determining if property values are equitable and consistent is a two-step process. The first step is to determine if the appraisal level in an area is comparable to the appraisal levels in **other areas** of the State. If one area's appraisal level is understated, it can create inequitable tax burdens among areas of the State. For example, the appraisal level is an important element in determining how much state aid to education a school district re-

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[1] DOR is required to take action based on sales ratio studies generated in odd-numbered years only.

ceives. If the appraisal level is understated, a school district may receive more than its fair share of state aid. In addition, the appraisal level can impact state sales tax distribution to the counties as well as the amount of property tax revenues the State receives. When the Department finds that the appraisal level for an area is understated, it can order the county assessor to make an overall adjustment to the property values.

The second step in determining if property values are equitable and consistent is to determine if all properties within the **same area** are appraised at the same level. This ensures that the tax burden is distributed fairly among taxpayers within the area. If property appraisal levels are inconsistent within an area, some property owners in that area may pay more than their fair share of taxes while other property owners may pay less. If DOR determines that appraisals within an area are not consistent it may request the county assessor to reappraise the area, according to A.R.S. §42-141.A(6).

DOR Needs to Improve Its Equalization Process

DOR needs to revisit its equalization process to make it more effective in helping to ensure that property appraisal level standards are met.[1] DOR's modifications to the equalization process placed more trust in county assessors to rectify problems with property appraisal levels; however, the Department's ability to enforce equalization was eroded. DOR needs additional enforcement authority to ensure that its equalization orders are carried out.

Modifications placed more trust in county assessors, but eroded DOR's ability to enforce compliance — DOR amended the equalization process for the 1991 and 1993 equalization years to better encourage county assessors to rectify property appraisal problems identified by DOR. DOR's previous process required equalization orders be issued to county assessors when the property appraisal level in an area fell outside the Department's standards. The modified process allowed the county assessor to write a "letter of intent to comply" in lieu of an equalization order being issued. If a county assessor did not write a "letter of intent to comply," then DOR would issue an equalization order.

The modified process, however, impacted DOR's ability to enforce equalization. Under the original process, the Department's rules provided DOR with the sanction to not allow county assessors to mail out property valuation notices until the county had corrected property appraisal problems specified in equalization orders. According to an October 8,

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[1] The equalization process is the process by which DOR informs county assessors that property appraisal levels fail to meet the standards established by the Department.

1992, internal DOR memorandum from the manager of the Research and Equalization unit to the assistant administrator of the Division of Property Valuation and Equalization, DOR could not invoke its enforcement sanction. This occurred because the modified process eliminated the issuance of equalization orders for counties that wrote letters of intent to comply, but subsequently did not comply.

> *"... one of the disadvantages of the Voluntary Equalization Program is that once we agree to it and do not issue a formal equalization order, then we do not have the enforcement authority that comes with a formal order. This enforcement authority (compliance checking) is very weak anyway (as discussed later), so there isn't much loss, but we do lose that standing. Therefore, since we entered into those agreements, we cannot do much about those counties that did not comply."*

Modifications did not result in increased compliance — DOR's modifications to the equalization process for years 1991 and 1993 did not result in increased compliance by county assessors with the Department's equalization standards. For 1989, county assessors complied with 27 out of 31 equalization orders issued. Two orders were not complied with, and two areas did not have enough sales to check compliance. For 1991 and 1993 combined, 12 of the 28 areas that county assessors had specified in letters of intent to comply still remained out of compliance when checked later in the same year. DOR issued an equalization order to one market area that subsequently came into compliance.

Stronger enforcement tools needed — DOR needs to revisit its equalization process and seek legislation for more effective means of ensuring compliance with equalization standards. The current enforcement options are weak and impractical. DOR should be provided stronger compliance enforcement tools similar to those used in other states.

Currently, the Department has two weak compliance enforcement tools. The first tool, pursuant to DOR's administrative rules, requires the Department to notify the county assessor in writing if he/she has failed to comply with an equalization order. The county assessor is then prohibited from mailing Notices of Valuation to taxpayers until he/she is notified by the Department that the order has been complied with. DOR personnel point out that this tool cannot be used in many instances. The data used to check compliance with an equalization order is oftentimes not available until after the county assessors are required to mail the Notices of Valuation to the property owners. Further, four counties print their own Notices of Valuation, rather than DOR printing them. According to DOR personnel, these four counties have sent out their Notices of Valuation in the past when the Department has prohibited them from doing so.

The second tool, a statutory special action in the courts, has never been used by DOR against a county assessor. Under its statutes the Department can request that a statutory special action be filed against the county assessor by the Arizona Attorney General. A

statutory special action seeks a court order to compel a county assessor to comply with the equalization order, with the risk of being held in contempt for not doing so. DOR personnel state that this compliance tool is inappropriate and difficult to use because of the burden of proof necessary to pursue it, as well as being time-consuming.

Some states impose fiscal sanctions when counties fail to comply with orders to improve equity and uniformity. A high-ranking Arkansas official feels that funding impacts are the most effective compliance enforcement mechanisms because, "whenever you withhold money, it really gets people's attention because it impacts their schools, highways, and local governments." The following examples present two different ways states currently impact county funding for failing to comply with orders to bring property values into compliance with set standards:

- In Colorado, a county is required to comply with a September reappraisal order by May 1. If the county is found to be in compliance by May 1, the county is then required to repay any excess state aid to education it received. If, by May 1, the county is still not in compliance with a reappraisal order, the State can do the reappraisal itself or hire a firm to do it. All expenses of the reappraisal are charged back to the county, in addition to any excessive aid to education received.

- In Arkansas, state funds are withheld from the county until it complies with a reappraisal order.

Authority to impose fiscal sanctions would enable DOR to penalize counties that do not comply with equalization orders. However, statutory changes are needed to provide DOR with this authority.

No Authority to Enforce Property Value Consistency Standards

Although there appears to be significant problems with the consistency of property values within many areas of the State, DOR has no statutory authority to address these problems. Using sales ratio studies to measure property value consistency, DOR has identified numerous instances of inconsistent property values within areas of the State. DOR, however, only has statutory authority to "request" that county assessors rectify consistency problems. The IAAO recommends and other states use reappraisal orders to address consistency problems.

Measuring property value consistency — DOR calculates the coefficient of dispersion (COD) in its sales ratio studies to measure whether property values within areas are rela-

tively consistent.[1] In an area with a low COD, properties' ratios of appraised value to market value are similar. As a result, the tax burden is distributed much more equitably among the taxpayers. In an area with a high COD, two properties' ratios of appraised value to market value can be very dissimilar. As a result, some taxpayers in that area could potentially pay more than their fair share of property taxes while others could potentially pay less than their fair share.

The following examples illustrate the COD's importance in determining the consistency of property values:

- In 1993, the Holbrook market area in Navajo County had a high COD of 42.40 for vacant property. The high COD indicates that consistency among ratios was poor. As a result, some vacant property owners may have paid more than their fair share of property taxes, while others may have paid less than their fair share.

- In 1993, the Sedona market area in Yavapai County had a low COD of 14.57 for vacant property. This low COD indicates that consistency among ratios was good. Therefore, the tax burden was distributed much more equitably among vacant property owners in this market area than in the Holbrook market area.

Many instances of inconsistent property values — According to our analysis of DOR's sales ratio studies, approximately 96 percent of the commercial areas, 66 percent of the vacant areas, and 27 percent of the residential areas in the State that had an adequate number of sales to be subject to equalization actions had inconsistent property values in 1989, 1991, and 1993. Table 3 (see page 19) illustrates by property type and year the number of areas with an adequate number of sales and the number found to have inconsistent property values.

Reappraisal orders needed, but no authority to order or enforce — Although the most effective way to address instances of inconsistent property values is to issue reappraisal orders, the Department does not have authority to do so. Because reappraisals can be costly, DOR would need to work with the counties and the Legislature to develop an appropriate approach.

The IAAO recommends that reappraisals be performed in areas where the consistency of appraisal is unacceptable. Similarly, in a 1991 DOR internal memorandum, the manager of the Research and Equalization Unit acknowledged that "reappraisal[s] [are] the only

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[1] The coefficient of dispersion measures the average deviation of properties' appraised values from the median property value within a county or market area. IAAO standards for appropriate COD's range from 10 percent or less to 20 percent or less, depending upon the property classification. A "low" or acceptable COD meets the IAAO standards, whereas a "high" or unacceptable COD exceeds the IAAO standards.

Table 3

Number of Areas with Inconsistent Property Values

Property Type	Year	Total Number of Areas Subject to Potential Equalization Actions[b]	Areas with Inconsistencies	Percent
Commercial	1989	11	11	
	1991	8	8	
	1993	8	7	
Total		27	26	96%
Vacant	1989	78	50	
	1991	70	49	
	1993	79	50	
Total		227	149	66%
Residential	1989	81	20	
	1991	80	27	
	1993	81	19	
Total		242	66	27%

[a] Commercial property is evaluated by county. Vacant and residential property is evaluated by market.

[b] Only areas with 25 or more sales were subject to potential equalization actions in 1989; only areas with 30 or more sales were subject to potential equalization actions in 1991 and 1993. See Table 4, page 22, for the total number of areas in the State by property type for 1989, 1991, and 1993.

Source: Auditor General staff analysis of DOR's 1989, 1991, and 1993 sales ratio studies.

way to address the lack of [consistency] found in valuations statewide." Moreover, the manager recommended that the equalization process be modified to include the issuance of reappraisal orders in instances of inconsistent property values in order to ensure property owners in the State are treated equitably. In addition, other states, such as Colorado

and Utah, order reappraisals when property value consistency standards are not achieved and state that consistency is important because it impacts whether taxpayers are being treated fairly.

DOR, however, has no authority to issue and enforce reappraisal orders in instances of inconsistent property values. Instead, the statutes provide that DOR can only **request** a county assessor to reappraise. To date, DOR has not requested a county to reappraise when consistency of property values was found to be poor.

If granted the authority to order reappraisals based on inconsistent property values, DOR would need to develop a program and a process to address the issue. Because the costs can be significant, DOR should work with county officials to develop methods that would be most cost effective. Regarding cost, a Utah state official estimated a reappraisal to cost $15 to $25 per parcel, but pointed out that there are ways to decrease this amount. In addition, he explained that a reappraisal involves high up-front costs, but once the reappraisal is done, much lower costs are needed to continue to ensure that taxpayers are treated fairly. These costs include the costs to maintain the models used to help generate property values.

RECOMMENDATIONS

1. The Legislature should consider providing DOR with additional authority to enforce equalization orders.

2. The Legislature should consider providing DOR with the authority to order reappraisals based on inconsistent property values.

FINDING III

IMPROVED METHODS NEEDED FOR EQUITY AND CONSISTENCY ANALYSES

The Department of Revenue should adopt better statistical methods to be utilized in sales ratio studies for equalization purposes. First, the Department should use additional methods to ensure that all areas of the State can be subject to potential equalization actions. Second, the Department should adopt a more appropriate method for eliminating outlier data from its sales ratio studies. Finally, the Department should use a reliability measure in its sales ratio studies in order to present confident conclusions about the reasonableness of property values.

Methods available to ensure that all areas can be subject to potential equalization actions — There are methods DOR can implement to ensure that as many areas in the State as possible can be subject to potential equalization actions. Currently, if an area does not

Table 4

Number of Total Areas Statewide That Have Not Been Subject to Potential Equalization Actions by DOR

Property Type	Year	Total Number of Areas Not Subject to Potential Equalization Actions	Total Number of Areas in the State[a]	Percent
Commercial	1989	4	15	27%
	1991	7	15	47%
	1993	7	15	47%
Vacant	1989	25	104	24%
	1991	43	113	38%
	1993	52	133	39%
Residential	1989	23	104	22%
	1991	33	113	29%
	1993	50	133	38%
Total		**244**	**745**	**33%**

[a] Commercial properties are evaluated by county. Vacant and residential properties are evaluated by market area.

Source: Auditor General staff analysis of DOR's 1989, 1991, and 1993 sales ratio studies.

have enough property sales in a specified time period, DOR cannot take any equalization actions on that area. In 1989, DOR required property sales of at least 25 within the specified time period to be evaluated in the sales ratio studies. In 1991, DOR increased this sample size requirement to 30 or more sales to be more consistent with statistical requirements. As a result, our analysis indicates that in 1989, 1991, and 1993 combined, 244 areas out of 745 total areas were not able to be subject to potential equalization actions, as illustrated in Table 4, page 22.

When an adequate number of sales within the specified time period is not available, the IAAO recommends that the time period from which sales are drawn be extended or that the sales be supplemented with independent appraisals. Because supplementing sales with independent appraisals is a time-consuming, labor-intensive process, DOR may want to first try extending the time period from which sales are drawn. In any case, DOR needs to ensure that as many areas in the state as possible are able to be subject to potential equalization actions.

More appropriate method for eliminating data from sales ratio studies necessary — The Department should adopt a more appropriate method for eliminating outlier data from its sales ratio studies. Before the median and COD are generated in sales ratio studies, it is appropriate to determine if any ratios are outliers; that is, if any ratios are extremely high or extremely low. The Department's current outlier elimination method was designed to compensate for problematic data provided by the county assessors. As a result, DOR eliminates all ratios above 200 percent and below 25 percent from the sales ratio analyses. According to the IAAO, only the most extreme ratios on each side of the median should be eliminated, until no more than 5 percent of the data have been excluded. In addition, if the method results in more than 5 percent of the data being eliminated, additional analyses should be performed to make sure that legitimate ratios are not being discarded. DOR's method for eliminating outliers has resulted in the Department eliminating more than 5 percent of the data from some of its sales ratio studies. However, DOR does not typically perform additional analyses when this occurs. As a result, the Department may determine that an area meets the specified standards for equity and consistency when the area's property values are not equitable and consistent. For example,

- DOR performed a sales ratio study on vacant property in Maricopa County using sales from January 1, 1994 through September 25, 1995. Sales and parcel information was provided to the Data Quality and Equalization Group for the generation of sales

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(1) Section 6.6, paragraph 2 of Standard on Ratio Studies approved July 1990 by the International Association of Assessing Officers.

ratio statistics after a number of initial processing steps had been performed. During this time period, 17,510 sales were identified. From this population, a number of tests indicated whether each sale should be included or excluded from the study. For example, one test determined if the sales affidavit property type and the assessor's use code matched. The Department eliminated 8,714 sales with non-matching codes, as well as an additional 26 that failed other tests. DOR performed no checks to determine if any of these sales were in fact valid and should have remained in the study. Finally, DOR eliminated all remaining sales with ratios above 200 percent and below 25 percent. As a result, 1,708, or 19 percent, of the remaining 8,770 cases were eliminated as compared to the 5 percent maximum recommended by IAAO standards.

Department personnel state that they are currently in the process of developing a statistically appropriate method for identifying and eliminating outliers.

Reliability measure should be used — Finally, DOR should use a reliability measure in its sales ratio studies when the CODs fall within the standards in order to present confident conclusions about the reasonableness of property values. A reliability measure is a statistical tool that indicates the degree of confidence when generalizing a sample's characteristics to the population from which the sample was drawn. Currently, the Department does not use a reliability measure and, therefore, cannot conclude with a certain level of statistical confidence that property values in an area do not meet the standards and an equalization order is needed. The IAAO recommends that confidence intervals be the reliability measure used in sales ratio studies and also points out that it is important for property values to be consistent in order for the confidence intervals to be good.

RECOMMENDATIONS

1. DOR should implement methods to ensure that property values in as many areas of the State as possible can be analyzed for potential equalization actions.

2. DOR should adopt a method for eliminating outliers from its sales ratio studies that conforms with the IAAO standards of no more than five percent of the data being eliminated.

3. DOR should use a reliability measure in its sales ratio studies when the CODs fall within the standards in order to ensure that equalization decisions are appropriate.

FINDING IV

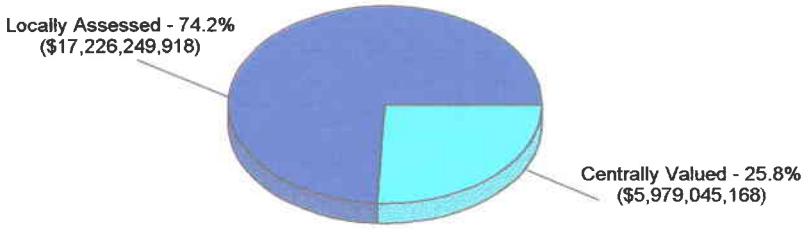
DOR'S CENTRALLY VALUED PROPERTY AUDIT FUNCTION NEEDS TO BE IMPROVED

While centrally valued property (CVP) accounts for approximately 26 percent of the total property tax base in the State of Arizona, DOR's CVP audit function has done little to ensure that information reported by the taxpayer is accurate and complete. Analysis found the CVP audit function to be ineffective and unproductive. In addition, the audit function has not consistently followed generally accepted auditing standards. Furthermore, DOR needs additional statutory authority to administer an effective and productive audit program.

Centrally valued properties comprise a significant portion of Arizona's property tax base, as shown in Table 5 below. By definition, CVPs are properties that often lie within two or more counties or states, such as railroads and utilities. The Department, rather than the 15 county assessors, "centrally" values these properties due to the overlap between two or more county assessor jurisdictions and because the valuation process is so complex. DOR uses data supplied by the CVP taxpayers to value the properties; therefore, it is critical that the information provided is accurate and complete. Concerned about inconsistencies

Table 5

Centrally Valued Property vs.
Locally Assessed Property for Tax Year 1994



Source: Auditor General staff analysis of Arizona Department of Revenue data for tax year 1994.

in information being reported by CVP taxpayers, DOR restarted a CVP audit function in 1993, with two auditors and one audit supervisor. In the late 1970s, DOR had a limited CVP audit function.

Audit Function Was Ineffective and Unproductive

The Department of Revenue has had an unproductive and ineffective CVP audit program. A review of the Department's CVP audits for the past two years found that, unlike other states, the audits covered only a few taxpayers and did not provide any additional tax revenue to the State. Between September 1993 and March 1995, the audit program examined only 16 of the over 800 total CVP taxpayers in the State. The 16 audits consisted mainly of Arizona water companies and other utilities. Further, the audits did not realize any additional taxes and only 2 of the 16 audits were ever finalized with the taxpayer.

States with CVP audit functions, such as Utah, California, and Louisiana, conduct more audits and realize additional tax revenues. For example, Utah and Louisiana conducted approximately 30 audits in the same period. Further, California completed audits of Fortune 500 companies, including telecommunication companies, realizing additional tax revenue of $445.20 per audit hour.

DOR management stated that CVP auditing productivity problems were due primarily to the misclassification of the audit positions. As a result, auditors initially hired did not have the appropriate skills to properly conduct audits. In addition, time was expended in training. During the course of the audit, DOR began making changes, and to date has reclassified one position. In addition, DOR has started an additional 17 audits.

In order to monitor the CVP audit program's effectiveness, DOR should develop and utilize performance measures. Other states, such as California and Louisiana, recognize the importance of measuring the impact of their audit programs. California measures impact by determining revenue collected per audit hour. Further, Louisiana's legislature established standards that set a minimum tax collection requirement based on the value of taxpayers audited. Louisiana demonstrates compliance with this standard by measuring the dollars collected through the audit process. Establishing performance measures would enable DOR to ensure that audit resources are allocated appropriately and are used effectively, thereby holding CVP taxpayers accountable.

Department Did Not Consistently Adhere to Auditing Standards

The Department did not consistently follow any professional auditing standards while conducting CVP audits. These standards are the minimum guidelines and responsibilities recommended to perform an audit. The American Institute of Certified Public Ac-

countants (AICPA) adopted and approved auditor guidelines and responsibilities referred to as generally accepted auditing standards (GAAS). The Western States Association of Tax Administrators (WSATA), and Utah, California, and Louisiana, three states with CVP audit functions, all follow GAAS or standards that reflect GAAS. GAAS requires the auditors to:

- Obtain a sufficient understanding of the taxpayers' internal control system in order to determine if the information reported by the taxpayers for valuation purposes is valid and complete. To date, DOR's auditors have not documented the internal control system of CVP taxpayers as part of the audits they perform. Understanding the control system can help the Department identify unreported items, such as significant equipment purchases or significant increases in income.

- Determine the nature, extent, and timing of appropriate audit procedures necessary to further ensure the validity and completeness of taxpayer information. Currently, the Department focuses primarily on determining if the taxpayers' information is consistently reported. For example, DOR looks for inconsistencies or discrepancies in information reported by the taxpayer in prior years compared to the current year. Further, DOR identifies these changes by comparing information reported to DOR to that reported to other agencies, such as the Arizona Corporation Commission.

- Utilize reasonable risk assessment criteria. Risk assessment could effect the overall audit strategy including the selection of future audits. In DOR's 1994 audit schedule, many of the larger CVP taxpayers were not audited. WSATA recommends that larger and more complex companies be audited as frequently as every four years.

During the course of the audit, DOR was developing an audit plan and implemented it in May 1995, after our review was completed. According to DOR management the audit program incorporates audit standards.

Additional Statutory Authority Needed

The Department lacks needed statutory enforcement authority to ensure CVP taxpayer accountability. The Department needs additional authority to assess CVP taxpayers' back taxes, penalties, and interest if DOR determines that the CVP taxpayer has underreported property tax information. Currently, if DOR receives CVP taxpayer information and learns that an instance of underreporting occurred that affected the taxpayer's valuation in prior and current years, the Department has the authority to only levy present year taxes, not back taxes, penalties, or interest. Conversely, California, Utah, and Louisiana have the

authority to assess CVP taxpayers taxes, penalties, or interest back three to five years, depending on the individual state. Enabling the Department to assess back taxes, penalties, or interest when instances of underreporting are found can encourage CVP taxpayers to voluntarily comply with tax laws.

RECOMMENDATIONS

1. To determine the effectiveness of the CVP audit function, the Department should develop and utilize measures of program effectiveness and efficiency.

2. To improve the CVP audit program, the Department should consistently follow professional auditing standards.

3. To increase the effectiveness of the CVP audit program, the Legislature should consider amending A.R.S. §§42-179.01(D) and 42-179.03(E). These changes would provide the Department with statutory authority to assess back taxes, penalties, and interest whether the taxpayer intentionally or unintentionally underreported.

FINDING V

DOR NEEDS BETTER CONTROLS OVER PROPERTY TAX DATA

DOR's controls over property tax data are inadequate. Strong controls over data are important because they provide reasonable assurance that the data is accurate and complete. First, DOR does not ensure that individual counties have adequate internal controls over property tax data. In addition, DOR has few procedures in place to review and ensure the validity of data received from the counties. Finally, DOR does not maintain data in accordance with its own record retention policy and disaster recovery plan.

Strong controls over computerized property tax data are designed to prevent or detect error or loss. Controls over data include policies and procedures that management has implemented to reasonably ensure that valid and reliable data are obtained, maintained, and fairly disclosed. In addition, these controls help assure the Department that it is receiving valid and reliable information.

Little DOR oversight of input of county property tax data – DOR needs to provide adequate guidance and oversight of county assessor data input efforts. The county assessors computerize property tax information that is used to generate the tax rolls and is also used by DOR in sales ratio studies. Because DOR relies on data input by the county assessors, DOR needs to provide the counties with data input procedures to help ensure that the data are accurately input. Once the procedures are in place, DOR's county audit group could be utilized to check the counties input procedures to ensure that they are using the procedures appropriately to ensure reliable information. Accurate data input helps both the counties and DOR ensure that property tax information is reliable.

DOR property tax data control problems – DOR lacks strong controls to ensure the accuracy and completeness of property tax data on the Department's computer system. For example, four county assessors send computer tapes with their property data to DOR which is then uploaded onto the Department's system, but the Department does not consistently require the assessors to provide the data in a prescribed format. Thus, information that is not recognized by the system is removed from future analyses. Further, the Department does not consistently document the use of edit routines to check for data

validity. As a result, DOR may be using invalid or incomplete data in its sales ratio studies. The Department could use edits to monitor both data reasonableness and completeness. For example,

- In January of 1995, DOR processed Santa Cruz County single family residential property data through an edit check designed to reveal any residential properties with assessment ratios other than 10 percent, the assessment ratio for residential property. This edit check revealed 35 single family residential properties that had assessment ratios of either 16 percent, that of vacant property, or 25 percent, that of commercial property.

DOR's lack of consistent use of strong procedures to test data may result in the Department using incomplete or invalid data in its sales ratio studies. It may also allow discrepancies that affect taxpayers to remain uncorrected. As a result, the Department may draw inappropriate conclusions concerning the equity and uniformity of property values in the State and cause some property owners to pay more or less than their fair share of the tax burden.

Records retention plan — The Department needs to revise its records retention plan. DOR's records retention plan inconsistently states how long DOR should retain documents relating to property tax. One section of the plan states 10 years, whereas another section states from 1 to 5 depending on the information. An appropriate records retention plan is necessary plans are necessary to ensure that documents are retained for an adequate amount of time for review by interested parties. During our audit, DOR was not able to provide us with the original 1991 and 1993 compliance sales ratio studies because DOR followed the lesser guideline. Subsequent to our audit, DOR's management began revising the records retention plan. In developing the new plan, DOR needs to ensure that documents are retained for an adequate amount of time.

Disaster recovery plan — The Department lacks a disaster recovery plan for processing computerized data in the event of a major software or hardware failure.[1] Disaster recovery plans are accepted practice for agencies such as DOR, which rely heavily on computer processing of information. The purpose of a disaster recovery plan is to ensure that an agency will be able to continue to perform its required tasks without undue interruption in the event of a disaster. DOR does regularly back up information contained on its com-

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[1] The fiscal year 1993 financial audit of DOR performed by the Office of the Auditor General found that DOR did not have a disaster recovery plan for computerized data in place and recommended that DOR develop and implement a disaster recovery plan.

puter system onto tapes, but does not have any off-site location to run these tapes in the event the Department's system cannot be utilized. Because DOR lacks a disaster recovery plan for computerized data, in the event of any major software or hardware failure, the Department may not be able to perform its tasks.

RECOMMENDATIONS

1. DOR can assist county assessors with improving the reliability of data input at the county assessors' offices. The Department can do this by issuing data input procedure standards and by using its county audit program to check compliance with the standards.

2. DOR should use procedures to ensure the validity and completeness of data on its computer system.

3. DOR should revise its records retention plan to ensure that important information is retained for an adequate time period.

4. DOR should develop and implement an effective disaster recovery plan for computerized data.

OTHER PERTINENT INFORMATION

During the audit, we collected information regarding the current property classification system. Over the past 26 years, the number of property classes in Arizona has increased steadily. Although many states use property classification to tax certain types of property differently, having a large number of classes can confuse property owners and make administration of the property tax system less efficient.

Classification systems enable taxing jurisdictions to assess different types of property at different percentages of value. Each class of property has an assessment ratio that is applied to the property valuation to produce the property's assessed value. As a result, equally valued property can have quite different assessed values and, therefore, property taxes may be significantly different for similar properties.

Number of property classes has increased more in Arizona than in most states — The number of property classes in Arizona has increased significantly since the State adopted a classification system in 1968. The Arizona Legislature established a property classification system after a state supreme court decision found the property tax system to be inequitable. The original classification system was comprised of five separate classes, including mines and standing timber; public utilities and railroads; commercial/industrial; oil and gas property; and a single class for residential, agricultural, and certain other property. Each of the classes had a different assessment ratio ranging from 18 to 100 percent. Since 1968, however, the number of property classes has grown steadily to 9 classes by 1988 and to as many as 13 classes in 1994, and finally 12, as of July 1995. In addition to the growth in classes, the Legislature has changed assessment ratios, which are applied to the property valuation to produce the assessed value of the property, a total of 66 times since 1968. For a list of current property classes and assessment ratios, see Table 6 (page 37).

A majority of states do not have property classification systems.[1] A 1989 report found that only 21 states have property classification systems. Of the 21 states that have classification systems, 16 have 4 property classes or fewer while Arizona had the second highest number of property classes with 12. In addition, during our audit we contacted 12 states identified by experts as having effective property tax systems and found that all these states have fewer classes of property than Arizona.

Having a large number of property classes may result in the tax burden being distributed inequitably among various classes. The property tax is analogous to an inflated balloon; when you push in on one side, the other side pushes out. When property taxes are reduced for

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[1] Most states that do not have classification systems prescribe, in their constitutions or statutes, one legal class for all assessed values.

owners of a particular class of property, the property tax burden becomes greater for other property owners. According to property tax experts, a disadvantage of having a complex property classification system is that property owners with substantial influence can secure special tax treatment at the expense of other property owners.

Many classes can hamper administration — A complicated classification system also hampers county and state administration of the property tax system. Several county assessors told us that a complex classification system generates many telephone calls and visits from concerned property owners. In addition, some county assessors and DOR administrators believe excessive classification can cause taxpayer appeals or litigation, especially for mixed use properties, such as mines, or commercial and residential historic property, which require the assessor to apportion the property's value among several different classes. For example, beginning in 1995, property owned by mining companies may fall into 2 different property classes, each with a different assessment ratio ranging from 5 to 30 percent. One DOR administrator believes that it will be extremely difficult to reach agreement on how the companies' assessed values are apportioned over the two distinct classes. Further, a complex classification system that is constantly changing requires DOR to spend significant additional time and resources revising property tax guidelines and answering questions from assessors' office staff and confused property owners.

Many people familiar with Arizona's classification system, including property tax experts, DOR administrators, and county assessors, believe the number of property classes should be substantially reduced. In addition, a 1989 report issued by the Joint Select Committee on State Revenues and Expenditures recommended the Legislature consider alternatives that would reduce the number of property classes to three: residential, industrial, and vacant/agricultural properties.

Table 6

Property Classification in Arizona

Property Class	Definition	Percent of Assessment Ratio	Percent of Estimated Tax Burden (1994 Tax Year)
Class One	Mines and Standing Timber	30	2.100
Class Two	Utilities and Telecommunications	30	21.100
Class Three	Industrial and Commercial	25	29.700
Class Four	Agricultural and Vacant Land	16	8.630
Class Five	Owner-Occupied Residential	10	32.870
Class Six	Leased/Rented Residential	10	5.300
Class Seven	Railroad, Airline, Private Car	25	0.261
Class Eight	Historic Property	5	0.026
Class Nine (B)	Commercial Historic	25	0.004
Class Nine (H)	Restored Commercial Historic	1	(a)
Class Ten (B)	Residential and Commercial Historic	10	0.001
Class Ten (H)	Restored Residential and Commercial Historic	1	(a)
Class Eleven	Leasehold Interest	1	0.006
Class B	Producing Oil and Gas Companies	100	0.002

(a) Amount too small to quantify.

Source: Auditor General staff analysis of Department of Revenue data.

Agency Response

ARIZONA DEPARTMENT OF REVENUE

1600 WEST MONROE - PHOENIX, ARIZONA 85007-2650

FIFE SYMINGTON
GOVERNOR

HAROLD SCOTT
DIRECTOR

December 5, 1995

Mr. Douglas R. Norton
Auditor General
Office of the Auditor General
2910 North 44th Street, Suite 410
Phoenix, AZ 85018-7243

Dear Mr. Norton:

We have reviewed the final report of your performance audit of the Division of Property Valuation and Equalization of the Department of Revenue. In general, we do not dispute the findings and recommendations in this latest report, subject to the following comments.

Finding I

The Auditor General Recommends Raising the Statutory Valuation Standard Found in A.R.S. § 42-141(C)

The first recommendation of the Auditor General is that A.R.S. § 42-141(c) be amended to increase the valuation standard. This is a policy decision of the Legislature which will create a shift in the property tax burdens of taxpayers. The Department is currently preparing an analysis of the implications of the proposal and will release it when it is completed.

More Information Should be Provided to Property Owners

While the Department does not take exception to the recommendation that the Department work with the County Assessors to assist them in providing property owners with better information on assessments, this recommendation may necessitate a statutory change, as well as increased funding for either the County Assessors or the Department, depending on who will bear the financial burden of the increased costs of printing and postage.

Finding II

The Department Continues to Improve Its Equalization Process

The Department is constantly seeking to improve all areas of operations, including its equalization responsibilities. Arizona has long been nationally regarded as one of the leading states in assessment administration through innovation and technical advancement. The Department does this by trying new approaches; discarding those that do not work well, and adopting programs that meet with success. The *Voluntary Equalization Program* discussed in the Auditor General's report is one of several new pilot programs that were tried during the 1991 and 1993 equalization periods. This was an approach that was utilized by the Department during these periods, but is not a continuing program. Although the program met with some success, it was not as successful as originally hoped. Therefore, any use of this or a similar program will be carefully scrutinized by the Department before being implemented in the future.

In trying new programs, some will succeed, and some will not. It is important, however, that within the scope of its authority, the Department continue to seek new and innovative methods to improve the property tax system for both the government agencies that rely on the property tax and the property taxpayers.

The Department Lacks Authority to Enforce Property Value Consistency Standards

The Department recognizes the importance of taxpayer equity and has strived to stress the importance of equity to the various county assessors in The Department's standards and guidelines. Improvements in statewide equity have been realized over the past several years, although there are areas and property types where equity could be improved.

The Department has discussed equalization based upon Coefficients of Dispersion (COD) several times over the years, but has felt that there is insufficient statutory authority to pursue COD equalization. If the Legislature desires to equalize based on CODs, the costs of "curing" these equity problems will be significant. The only method available for fixing high CODs is a property-by-property reappraisal, which may cost between $20 to $30 per parcel to conduct. This would relate to a cost of approximately $32 million based upon an average price of $25 per parcel and an estimate that 60% of the state's 2.1 million parcels would need reappraisal.

If the Legislature amends the Arizona Revised Statutes to clearly provide authority to issue equalization orders based upon CODs, the Legislature should provide the requisite funding to embark on this new endeavor. This may also necessitate increased staffing to perform these new duties.

Finding III

Methods are Available to Ensure that All Areas can be Subject to Potential Equalization Orders

A problem that the report points out is that in areas where there are no sales or insufficient valid sales for analysis, the Department does not take action. One possible remedy for this situation is to use "appraisal ratio studies", where independent, expert appraisals are substituted for sales in a ratio study. (*IAAO Property Appraisal and Assessment Administration: pg. 543*) Several states use this process to study areas with few or no sales. The Department, however, does not have the staff to conduct these appraisals and to request the assessors to appraise the properties as permitted in A.R.S. §42-141(A)(6) would not meet the criteria of an "independent" appraisal.

Another approach is to extend the time period from which sales are drawn. This approach would bring in additional sales only where sales were available and would increase the number of areas that could be studied only marginally. There is a limit, however, on how far back one should go. The older the sales, the less stable and reliable is the analysis based upon those sales. In general, going back further than three to five years (depending on property type) would endanger the statistical reliability of the analysis (*IAAO Property Appraisal and Assessment Administration: pg. 543*). In some cases, a shorter time period produces the same result. For example, with the recent trends in the Phoenix metropolitan market, sales as recent as 18 months old are not reflective of the market.

A combination of these two procedures is used by many states where sales are supplemented with independent appraisals in sufficient number to achieve statistically reliable sample sizes. This would require funding for appraisal staff and travel.

Methods for Eliminating Data from Sales Ratio Studies are Being Reviewed

Since the Department does not issue equalization orders based upon CODs, the ratio studies used by the Department have been designed to accurately measure the *level* of value, not necessarily the dispersion among the values. The *purpose* for which a ratio study is designed dictates whether a given outlier methodology is appropriate and whether it is providing a clear and accurate picture of the data being analyzed.

For example, since the COD measures dispersion or scatter in the data, the outlier method used should not eliminate outliers that are valid indicators of dispersion. On the other hand, if the purpose of the study is to determine, as accurately as possible, what the average *level* of value is, then all data that would distort or bias that measure should be eliminated.

The Department's ratio studies have been expressly designed to measure the central tendency (average) of ratios, and to do so, the center grouping of the data has been selected, eliminating all data errors, whether the error is in the sale price or in the full cash value. It is not the intent of the ratio studies to identify individual valuation errors, but rather to measure the center of the distribution, or the average ratio between full cash value and sale price. Other reports produced by the Department for the counties identify individual valuation errors based upon ratios.

Standard statistical techniques found in any beginning statistical text contain outlier exclusion methods such as plus and minus given standard deviations, interquartile ranges, 10 and 20 percent trimmed means, and confidence intervals about the mean or median. Almost all of these methods exclude 5% or more of the data and yet are accepted statistical techniques.

The IAAO guideline of 5% is a compromise between accurate measurements of CODs and valuation levels. As with all compromises, there are trade-offs which weaken the two purposes that have been compromised. Within the assessment profession, there is controversy surrounding this recommendation. For example, Mr. Peter Davis of the Kansas Division of Property Valuation, in a 1995 paper on the subject of ratio studies[1] stated, "*In over 80 percent of the counties in Kansas, the ratio study data does not meet the assumption of a normal distribution when subjected to a powerful statistical test.*" Kansas uses interquartile ranges for outlier control, which regularly exclude greater than 5% of the ratios.

There is very little agreement in the ratio study community on outlier methodology. Suffice it to say, as the report points out, that the Department is currently examining its outlier methodology and attempting to identify statistically sound methods which are based on the distribution of the data and which may be superior to those currently employed by the Department.

The Use of Reliability Measures

Confidence intervals are a complex topic at best. A confidence interval, as used with ratio studies, is a range of ratios within which the researcher can, within a given percentage of confidence (90%, 95%, 99%), be confident that the sample measure (ratio) adequately represents the total population.

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[1] Peter L. Davis, *Ratio Study Tools for Small Jurisdictions and Rural Counties*, Paper presented at the 1995 IAAO Conference on Assessment Administration, Chicago, IL, p. 5

Confidence intervals are powerful tools when the assumptions about the sample and the population upon which they are based hold true, and they are applied to a single sample set. They are *not* valid when used in a comparative method for equalization in the presence of varying amounts of dispersion between jurisdictions.

Confidence intervals are based upon dispersion in the data. The greater the dispersion, the wider the resulting confidence interval. What this means is that areas of wide dispersion have a wider confidence interval than areas with little dispersion. This fact *penalizes* assessors who are doing a good job with equity, and *rewards* assessors who are doing a poor job with equity. Taken to extreme, an assessor could manipulate the confidence interval to a point where they would never face equalization even though their values are well below the required levels.

The Department recognized this weakness and stopped using confidence intervals in 1991. The only time confidence intervals should be used is when all jurisdictions being measured with the confidence interval are within acceptable standards for dispersion as measured by the COD, as recommended by the Auditor General's report.

Finding IV

Effectiveness of the Centrally Valued Property Audit Function

As was explained to the Auditor General's staff, the CVP audit function was ineffective for the first several months of its existence because the audit positions were misclassified. In fact, this program is barely two years old as of the date of this response. The auditors were hired in the Fall of 1993, therefore, this program does not have the history of other states surveyed by the Auditor General.

The positions were established as Revenue Field Auditors which are not required to have any property valuation experience. Shortly after they were hired, the Department recognized the problem and took steps to correct it. The auditors spent several weeks in property valuation training during their first year as CVP auditors, as well as spending countless hours with CVP appraisers learning the CVP valuation procedures. In addition, one of the vacated positions was able to be reclassified a Property Appraiser III. Other states (California, Montana, Utah, New Mexico, Louisiana, Wisconsin, Washington, and Idaho) have tried and have discovered, as Arizona has, that to have an effective CVP audit function, you must use your most knowledgeable and experienced CVP appraisers.

In spite of these shortcomings, the Auditor General's Office was able to locate only two states that did more audits in the past 18 months than Arizona, and those two states (Utah and Louisiana) do limited scope audits (Louisiana audits only barge company allocation factors). California, which has a long-standing comprehensive CVP audit program staffed with fourteen experienced appraiser/auditors, completes approximately seven audits per year, or one audit every two years per auditor.

Of the top twenty-five centrally valued taxpayers in Arizona in terms of full cash value, nine have been or are scheduled to be audited. The Department is progressing on its audits.

The Department Does Have Auditing Standards

At the time the Auditor General met with the CVP audit staff, they were advised that an audit program, based on Generally Accepted Auditing Standards, was being developed and they were provided a draft copy of the audit program on February 23, 1995. The audit program has since been finalized. Before the audit program was finalized, the audit standards which were applied, while not as extensive and well defined as those outlined in the final audit program, were nevertheless in accordance with Generally Accepted Auditing Standards.

Currently the only body that certifies CVP assessment auditors is the Multistate Tax Commission (MTC) and the only approved certification class is sponsored by the Western States Association of Tax Administrators (WSATA). CVP's audit supervisor is certified by MTC. The Department has modeled its audit program directly from the WSATA training manual which follows Generally Accepted Auditing Standards. Other CVP auditors will be certified at the earliest possible date.

CVP is a member of the MTC audit program which will start its first audit next fall (1996). The MTC has indicated that it would like the lead auditor selected for that audit to be from Arizona (primarily because of the progress Arizona has made in developing an audit program).

Finding V

The Records Retention Plan is Being Reviewed

The Department is currently reviewing it records retention plan to insure consistent and appropriate retention schedules.

Sincerely,

Harold Scott

Harold Scott
Director

HS:pjs

APPENDIX A

Technical Problems with the 81 Percent and 82 Percent Targets

As noted in Finding I (see pages 6 through 13), some of Arizona's current sales ratio adjustments are inappropriate. Two adjustments, one for mass appraisal error and one for abnormal time on the market, are unnecessary. Second, adjustments for personal property and creative financing should be made to the sales prices of individual parcels when applicable and not in all cases. These adjustments are used to arrive at the 81 and 82 percent targets mandated by statute.

Two adjustments inappropriate and unnecessary — One adjustment for mass appraisal error and the adjustment for abnormal time on the market are unnecessary. Since it is not possible for a mass appraisal system to value all properties at the target ratio, room for mass appraisal error is allowed. A range of plus or minus 10 percent of the median for mass appraisal error is needed. However, the additional 10 percent downward adjustment for mass appraisal error is not needed according to IAAO standards.

In addition, the adjustment for abnormal time on the market is inappropriate. DOR designed this adjustment in the 1980s to compensate for the loss in opportunity cost the seller suffers due to excessive exposure time needed to sell his/her property. According to a DOR economic advisory group, this adjustment is inappropriate and should be discontinued because the loss is unrelated to the value of the property. In addition, this group noted that no appraisal organization recognizes it, nor is it allowed in VA, FHA, HUD, bank, savings and loan, or mortgage company appraisals.

Two adjustments should be made on a per-parcel basis — The remaining two adjustments for personal property and creative financing are appropriate, but as IAAO standards indicate, they should be made on a per-parcel basis, rather than using them across the board as is currently done. Current practice can result in inaccurate medians and coefficients of dispersion that fail to indicate the true relationship of properties' appraised values compared to market values for an area. Adjustments for personal property and creative financing should be made to the prices of only those properties whose sales involve these special factors.

Table 7

Comparison of Current Requirements and Recommended Practice for Sales Ratio Study Adjustments

Adjustments	Current Law	Recommended Change[b]
Creative Financing	Downward allowance for all properties (1% to 3%)[a]	Adjust sales prices on a per-parcel basis
Personal Property	Downward allowance for all properties (0% to 2%)	Adjust sales prices on a per-parcel basis
Abnormal Time on the Market	Downward allowance for all properties (5%)	Eliminate this adjustment
First Mass Appraisal Error Adjustment	Downward adjustment (10%)	Eliminate this adjustment
Target Median Ratio	**81% or 82%**	**100%**
Second Mass Appraisal Error Adjustment	+/- 10% of the target median ratio	+/- 10% of the target median ratio
Ratio Standard	**73% to 89% or 74% to 90%**	**90% to 110%**

(a) Percentage adjustment depends on type of property, i.e., commercial, vacant, or single family residential.

(b) The recomended practice is based on IAAO standards and recommendations from a DOR economic advisory group.

Source: Auditor General staff analysis of DOR's adjustments to sales prices and IAAO adjustments.