

**The 1986 Tax Reform Act: Its Impact, With Special  
Emphasis on Texas Cities**

**BY**

**CHARLES R. MATHEWS**

**AN APPLIED RESEARCH PROJECT SUBMITTED TO THE  
DEPARTMENT OF POLITICAL SCIENCE  
SOUTHWEST TEXAS STATE UNIVERSITY  
IN PARTIAL FULFILLMENT  
FOR THE REQUIREMENTS FOR THE DEGREE OF**

**MASTERS OF PUBLIC ADMINISTRATION**

**(Summer 1999)**

**FACULTY APPROVAL:**

Patricia Shields

Howard R. Balanoff

**This research is dedicated to my wife Julia for all of her support and friendship.**

**Also to Robert E. Peterson, vice president of First Southwest Company, who  
suggested the topic and helped me begin this effort before his death from cancer.**

## TABLE OF CONTENTS

<b>Chapter 1</b>	<b>Introduction.....</b>	<b>3</b>
	The 1986 Tax Reform Act: A Mayor's Experience.....	3
	Research Purpose.....	5
<b>Chapter 2</b>	<b>Literature Review.....</b>	<b>7</b>
	History of the Law.....	7
	1986 Tax Act.....	8
	Rebate Requirements.....	12
	Internal Revenue Service Regulations and Amendments.....	13
	Enforcement of the Act.....	15
	Arbitrage Rebate Payments.....	18
	Service Providers.....	21
	Yield Burning.....	21
	A Texas City.....	24
	Recommended Solutions .....	25
	Conceptual Framework.....	27
<b>Chapter 3</b>	<b>Research Methodology .....</b>	<b>29</b>
	Purpose of Chapter.....	29
	Survey Research.....	29
	The Survey Instrument .....	29
	Sampling Issues.....	30
	Statistics/Statistical Package.....	31
<b>Chapter 4</b>	<b>Results.....</b>	<b>32</b>
	Introduction.....	32
	Demographics.....	32
	Awareness of the Act.....	32
	Compliance.....	33
	Yield Burning.....	34
	Outstanding Bonds.....	34
	Arbitrage Rebates.....	35
	Government Finance Officers Association .....	35
	Recommended Solutions .....	36
	Lost Building Opportunities.....	37
	Large/Small Issuers of Debt.....	37

<b>Chapter 5</b>	<b>Conclusions .....</b>	<b>39</b>
<b>Appendices</b>		
List of Officials and Texas Cities that Received Questionnaire	A.....	41
Copy of Letter to City Finance Directors	B.....	46
Copy of Letter to Dr. Granof Asking for Permission for Use of Definitions	C.....	47
Sample Questionnaire	D.....	48
Complete Results for the Survey	E.....	52
Glossary of Terms	F .....	62
<b>References .....</b>		<b>65</b>
Books .....		65
Nonperiodicals .....		66
Periodicals .....		67
Newspapers .....		68
Internet.....		69

## **CHAPTER ONE**

### **INTRODUCTION**

In 1986 there was a push by the United States Treasury Department to reduce the monetary losses to the Treasury. The Department was determined to change the tax law as the federal government was running large deficits. This was not generally the case with local government, those entities had budgets that balanced, indeed most had budget surpluses. The Department felt the need for equity from the federal perspective. This was what drove the movement that resulted in the 1986 Tax Reform Act. The Act was an attempt to redress this disparity.

The debate began in Congress, at the beginning the major thrust of the effort was to eliminate the ability of local governmental units to issue tax-exempt debt instruments. At a practical level the ability to issue tax-exempt debt was causing a major loss of income to the United States Treasury. This is because citizens who hold tax exempt instruments do not pay federal tax on the interest income of these bonds. The Treasury viewed the policy as a questionable federal subsidy to state and local governments.

#### **The 1986 Tax Reform Act: A Mayor's Experience**

At this point in time it was my good fortune to be mayor of the City of Garland, Texas. Garland was the ninth largest city in Texas and the ninety-first largest city in the country. I was asked by the U.S. Conference of Mayors and the Texas Municipal League to participate in the debate in Congress. My participation was limited to a trip to Washington D.C. in January 1986 with the mayors of Houston, Austin, Galveston, Beaumont and Port Arthur. All were Democrats, I was the lone Republican.

That was of some importance because the Texas Senatorial delegation consisted of Senator Lloyd Bensen who as a Democrat and the senior member of the Senate Finance Committee and Senator Phil Gramm, a Republican.

The visits to these two distinguished Senators were quite different. Senator Bensen was very supportive of our efforts to amend the bill so that local governments could continue to issue tax-exempt debt. He told us that there was a retreat of the Committee the coming weekend and he would discuss with the members the possibility of changing the bill in our favor. We left much relieved.

The meeting with Senator Gramm was very different. As the only Republican in the group I was afforded the privilege of leading the discussion. Senator Gramm, who holds a doctorate in economics held very strong views on local government being able to issue tax-exempt debt. He said he thought it was not good public policy for the cities to continue to receive this benefit which was very costly to the United States Treasury at a time when cities were running budget surpluses and the federal government was running large deficits. His comments were not what we wanted to hear.

During the Committee debate the Act was amended to allow the issuance of tax-exempt debt. This was a major victory for local government. All of the lobbying effort on the part of the cities was to protect the ability to issue tax free debt. When the Act was amended, most local officials lost interest in understanding what was in the remaining bill. This lack of interest has proven costly for local government. The tightening of the arbitrage rebate rules was not something most mayors understood. It was not the primary focus of the debate. It appears that perhaps the financial community that was involved did understand the debate and just did not lobby the mayors to protest the tightening of the rules.

As will be discussed in the literature review, the 1986 Tax Reform Act contains rules that are helpful to the investment banking community that are not as helpful to local government. All in all it can be said that the mayors won the war but lost this battle. The loss of the battle is what this ARP is about. The Act as amended tightened up the ability of states and cities to re-invest the moneys they received from the selling of their bonds.

These new rules prevented arbitrage and made the governmental units liable for taxes and penalties. As a result of this Act, Texas cities began to manage and report their finances in new ways. Although, cities have had to account to the U.S. Treasury for arbitrage earnings for almost 15 years, little scholarly research has examined the influence of this complex and evolving policy on cities. In addition, the opinions of those administrators most immediately affected (finance officers) are unknown. This paper is an attempt to address these weaknesses in the literature. How this Act affected their cities and how the finance experts for those cities feel about those changes has not been explained by the literature.

Specifically, this applied research project is an attempt to gather the opinions of the finance experts of the forty largest cities in Texas. Hopefully this information will enable a better understanding of the impact of the 1986 Act on Texas cities. It is also hoped that this project can gauge the amount of support for reform of the Act among finance officers in Texas.

### **Research Purpose**

The first purpose of this Applied Research Project is to review the literature on the 1986 Tax Reform Act in order to distill information about the Act that is relevant to the debt issue practices and policies of Texas city government. This review takes into account relevant historical changes in the law. Given the importance of the 1986 Tax Reform Act, the second purpose of this study is to determine the impact of the Act on Texas cities from the point of view of their finance directors. It is expected that the finance directors will view the impact as detrimental.

In addition, the study will compare the opinions of finance directors from the “larger issuers of debt” cities to those who have issued smaller amounts of debt to see if there are differences in their opinion about the Act. It is felt that the cities with the most debt, that

is the cities with the most experience with issuing bonds, might have a different view than finance directors who had issued less debt.

Hopefully the research findings will provide support to the efforts of the Government Finance Officers Association as they go about educating the Congress and the White House about the problems associated with the arbitrage rebate rules contained in the Act.

Based on the above review, the following working hypotheses are presented. It is expected that the finance directors are aware of the 1986 Tax Reform Act and know the amount of their cities' outstanding bonds. Further, it is anticipated that the finance directors would have concerns and opinions about compliance with the law and the problems associated with yield burning. The directors should also be aware of the costs of arbitrage rebates, both in dollar amounts and in lost building opportunities for their city. It is expected that the larger issuers of debt would have a different view of the Act than the smaller issuers of debt.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

This literature review examines the 1986 Tax Reform Act and discusses parts of that Act as it relates to arbitrage and arbitrage rebates. The Act is over two hundred pages long and has been amended seven different times. The Act was amended by the Internal Revenue Service in 1989, 1991, 1992, 1993, 1994, and twice during 1997 the IRS made additional changes. Because of both its length and its complexity, this paper reviews part of the Act and just some of the changes. As with most major tax laws there have been unintended or unanticipated consequences and some of these are reviewed.

Also the highlights of key tax issues that affect local governments are examined. The chapter will end by presenting the conceptual framework which is used to organize the empirical portion of the study.

#### **History of the Law**

In 1986 there was a strong push by the United States Treasury Department to make some changes in the U.S. Tax Code. Our area of interest is the tax law that affects governmental units. There was a vested interest in the status quo by many interested parties: tax lawyers, investment bankers, financial advisors, bond salesmen and the politicians of the affected entities. These individuals opposed the interests of the Treasury and their allies in Congress and the ensuing conflict is wonderfully described in "Showdown at Gucci Gulch"(1987). The conflict was all played out in a big battle that occurred in the United States Senate, during hearings of the Senate Finance Committee chaired by Senator Bob Packwood. After many days of debate the logjam on how to proceed was broken when the committee agreed to delete the provision from the bill that

would cause the interest on municipal bond income to be taxed. The tax exempt issue had united most people against the bill (Birnbaum & Murry, 1987).

Cities and states had, for over a century, enjoyed the benefits of selling their bonds at lower than market rates because the interest was tax-exempt. While Congress in 1986 passed the Act, the debate on its contents continues.

When mayors and governors announce a new borrowing for a public works project, they often mention that the interest received by the purchasers of the bonds is tax-exempt, thus lowering the costs and saving the local government money. It's a politicians dream: Everyone benefits. Voters get new public works and those who invest get tax-free bonds. But beware of free lunches. After all the taxes are paid, average taxpayers lose with every borrowing in the 150-billion-a-year municipal tax-exempt market for bridges, highways, schools and hospitals. Those who benefit are investors in the top tax brackets who purchase the bonds (Regan, 1996, p 5).

A counterbalancing view appears in the *National Tax Journal*. The article argues that the tax-exempt status of municipal bonds provides little or no subsidy to capital investments made in cities. Instead, the *Journal* maintains that an individual in a high tax bracket only earns a higher rate than he would normally (1991, p71).

### **The 1986 Tax Act**

The Act was passed in 1986 and went into effect December 31, 1986. Arbitrage and the regulations surrounding it are found in Section 148 of the Internal Revenue Code and in Section 1.103 and Sections 1.148 through 1.150 of the Code. Prior to the passage of the 1986 Act, arbitrage rebate requirements applied to certain industrial development bonds and qualified mortgage bonds. The Act extended the rebate requirement for private activity bonds issued after December 31, 1985, and all other tax-exempt bonds issued after August 15, 1986 (Mudge, Rose, Guthrie Alexander & Ferdon, 1989, p1).

The word arbitrage, as used in this discussion means the investing of proceeds received from the sale of tax-exempt bonds in higher yielding securities. The profit from that investment is what is prohibited by the Act. The Act requires that the entire profit from arbitrage be remitted to the government, less certain small expenses. These rules are referred to as the yield-restriction rules. The second set of rules concerns what happens when there is a profit, and these deal with arbitrage rebates. The regulations are very broad in their definition of funds that are subject to the restrictions and rebate requirements.

The Code defines the term “gross proceeds” as any proceeds of the bond issue and any replacement proceeds of the bond issue Section 1.148-8(d)(1). Based upon this definition there are a number of funds that are subject to this Section. “Proceeds” means the original proceeds and any transferred proceeds. “Original proceeds” refers to the sale proceeds and any investment proceeds of the issue. “Sale proceeds” are any amounts received from the sale, excluding the first year’s interest on the bonds. “Investment proceeds” are any money made from investing the money from the bond issue. “Transferred proceeds” deals with an issue that is refunded and includes any monies that might be allocated by the refinancing. “Replacement proceeds” are monies that are held in a reserve or replacement fund or other funds that are set up with the proceeds from the issue.

The term “yield” underscores all aspects of arbitrage requirements. Therefore, it is important to specify its meaning. The Act defines “yield” as the rate of return which is calculated by using the present value of the receipts or proceeds and the investment of those receipts or proceeds at what is called the purchase price of the purchased investments. The definition of the purchase price is that price received from the sale of the issue that was received from the first buyer of the bonds. That first buyer cannot be a bond house, a broker, an underwriter or any other intermediary. Said another way, the

purchase price is the market price. The market price is the price that a willing buyer will pay for bonds offered by a willing seller (Burke, 1992, p3).

The Act does allow for certain exceptions to arbitrage rebates. These exceptions are discussed in Section 148, ( c ), (d) and (e) of the Code. The exceptions are as follows:

**New Money Funds.** Generally speaking, original proceeds and investment proceeds (e.g., interest earnings) of a governmental issue generally may be invested at an unrestricted yield for a three year period from the date of issue, if it is reasonably expected on the date of issue that:

- ~ at least 85% of the spendable proceeds will be spent on the governmental project(s) within three years,
- ~ a substantial binding contract (of at least \$100,000) to commence work on or acquire the project will be incurred within six months after the bonds are delivered, and
- ~ after the contract is incurred, work on or acquisition of the project must proceed with due diligence to completion.

**Pooled Financings.** Pooled financings (i.e., financings in which the proceeds are used to make loans to two or more persons) are generally permitted for a temporary period during which time it is permitted to invest the proceeds at an unrestricted yield for a period of six months only, pending disbursement as loans to the pool participants. The participants themselves are entitled to the normal temporary periods already described, but must include the time the funds were held in the pool prior to the loan origination.

**Debt Service Funds.** Amounts deposited into a bona fide debt service fund may be invested at an unrestricted yield for a period of 13 months.

**Interest Earnings.** Interest earned on bond proceeds may be invested at an unrestricted yield for a period of only one year from the date of receipt.

**Reserve or Replacement Funds.** Amounts deposited in a reasonably required reserve or replacement fund may be invested without restriction throughout the life of the bond issue as long as the reserve fund balance does not exceed 10% of the proceeds of the issue.

**Minor Portion.** A minor portion of any bond issue may be invested at an unrestricted yield throughout the life of the issue. The definition of the minor portion of a bond issue was revised by the 1986 Tax Reform Act. The minor portion of a bond issue is one of the following:

- ~ If the bonds were issued prior to 8/31/86, the minor portion is equal to 15% of the spendable proceeds of the issue.
- ~ If the bonds were issued after 8/31/86, the minor portion is the lessor of 5% of the spendable proceeds of the issue or \$100,000. Unless the bond issue was less than \$2 million, the minor portion is \$100,000. (Burke, 1992, p6-7)

In addition there are three more exceptions: the small issuer exception, the general six month expenditure exception and the tax revenue anticipation notes six month expenditure exception.

The small issuer exception states that the issuer reasonably expects to not issue more than \$5,000,000 in bonds in any one calendar year (Section 148(f)(4)(D)(iv)). In this case any investment monies are not yield restricted.

The six month exception states that the gross proceeds from the sale of the bonds that are allocated to expenditures for governmental purposes within the six months following the date of issue are exempt from arbitrage rebates(Section 14(f)(4)(B)(ii)).

The tax revenue anticipation note is a short term obligation, the proceeds of which are used for working capital. The exception applies if the tax revenue anticipation note does

not exceed the amount of taxes and other revenue received during the six month period minus the amount of expenses plus one additional month's expenses (Burke, 1992, p18).

### **Rebate Requirements**

Now follows an examination of the rebate requirements, how the rebates are to be calculated, and when any due rebates are to be paid. It should be remembered that the Act is not speaking to a tax, but to a rebate of excessive income outside of the exception guidelines.

The regulations require the use of the "future value method" when the governmental unit is computing the rebate (Orrick, Herrington & Sutcliffe, 1989). To correctly perform this calculation, the issuer must prepare a cash flow report that shows all of the investments that are subject to the Act. The report must show all of the income received from the investment of the funds created by the issuance of the tax-exempt bonds. The issuer then calculates the future value of the cashflow of the yield of the bonds to the date of the computation.

The statute requires that an issuer then rebate any excess arbitrage. "The federal tax statute requires that issuers rebate "excess" arbitrage together with all earnings on the excess. The future value method is designed to incorporate automatically the earnings on the excess arbitrage into the calculation of the rebatable amount to final maturity date of the bonds (Orrick, Herrington & Sutcliffe, 1989, p3 )."

Although the regulations require an issuer to calculate a rebate every five years, it is prudent to perform calculations more often. There are several reasons for this. First, more frequent reviews will assure the bondholders that the money will be available to pay the rebate when it is due. This is especially true if a rebate account is put into place with the proper amount of funds. The second reason is for audit purposes. Many municipal auditors will request that a reserve fund be set up. (Orrick, Herrington & Sutcliffe, 1989, Burke,1994)

As was noted earlier, the Act has been amended seven times. Some of the amendments are reviewed to show a few of the difficulties with the original Act.

### **Internal Revenue Service Regulations and Amendments**

On May 12, 1989, two and one half years after the passage of the Act, the Treasury released its first set of Temporary Regulations. These regulations were limited in scope (Orrick, Herrington & Sutcliffe, 1989). "To a large extent the regulations seem to be aimed at an attempt to curb perceived abuses (Mudge Rose, 1989 p2)".

One of the several changes these new regulations made related to the "computation date credit". This regulation has to do with a credit of \$1,000 every five years for expense incurred in calculating the rebate. This regulation is designed to help issuers pay for the additional staff time needed to comply with the regulations or to help pay for outside consultants.

These rules are complex, as is noted in the quote from the tax law firm of Mudge Rose indicates: "These detailed and complex rules contain an inordinate amount of complexity, given that the rules provide a small credit which is wholly insufficient to cover the expenses associated with compliance with the rebate requirement".( Mudge Rose Guthrie Alexander & Ferdon, 1989, p3).

These complex regulations triggered an effort by the American Bar Association Section of Taxation to review the regulations and comment to the Treasury (American Bar, 1990). The commentators are among the most prominent tax authorities in the country. A quote from that report is instructive.

We believe that the Temporary Regulations are unduly lengthy and overly complex. The numerous rules included within the Temporary Regulations seem to result from an attempt by the drafters of the Temporary Regulations to address each and every 'abusive' situation which may be perceived to be abusive. The net result of this approach is that the Temporary Regulations, as currently promulgated, are extremely long,

very detailed and yet, at the same time, provide little in the way of practical guidance which would help issuers of tax-exempt obligations to comply with the arbitrage and rebate requirements imposed by Section 148 of the 1986 Code. In effect, the attempt by the draftsmen of the Temporary Regulations to identify and eliminate every tainted transaction, imposes a large burden of compliance on all issuers of bonds, the overwhelming majority of which involve the use of no suspect methodology. The burden of compliance includes the cost of the detailed record-keeping which compliance with the Temporary Regulations will require, as well as the costs which will be incurred by issuers in seeking guidance from their bond counsel in applying the Temporary Regulations... The regulatory approach of the Temporary Regulations seems to be inconsistent with both the Congressional intention regarding the arbitrage and rebate limitations, as well as with statements made by the Commissioner of Internal Revenue, Fred T. Goldberg, Jr., regarding regulatory simplification" (American Bar, 1990, p3).

In another effort to clarify the previously issued regulations the Treasury published an amendment to the 1989 Temporary Regulations by publishing a new set of amendments on April 25, 1991. These amendments were over 200 pages long and were considered incomplete (Mudge Rose, 1991). One of the changes included the increase to \$3,000 of the credit for expenses in calculating the rebate during a five year period.

On May 12, 1992 the United States Treasury Department finalized the temporary and proposed regulations relating to rebate and arbitrage that had been first issued in May of 1989 (Municipal Finance Report, 1992, p1). One of the new changes allowed certain bonds to avoid any yield restriction requirement as long as the issue was subject to rebate. This was in response to industry complaints (Municipal Finance Report, 1992, p1).

The law firm of Kutak Rock, in a memo to their clients in which they reviewed the new regulations regarding the two year construction exception, said the following:

Should the time ever return when issuers can realize investment spreads on the investments of construction proceeds, the 34-page complexity of the two year spending exception with its myriad of date-of-issue elections to qualify, its overly-elaborate definition of construction and its byzantine



methods of bi- and trifurcation of the issue will prove highly tedious to exploit and ultimately disappointing for issuers who thought there was any value to this exception (Kutak Rock, 1992, p38).

On June 14, 1993 the Internal Revenue Service released what was called the final regulations on yield restrictions and rebates (Chapman and Cutler, 1993 p1). One of the changes was a computation credit in the amount of \$1,000 per bond year, which replaced the previous regulation which allowed \$3,000 every five years.(Bullard Spahr Andrews & Ingersoll, 1993 p1). Section 1.149-7 discusses the spending exceptions to the rebate requirement that were discussed earlier. The six month and the two year exceptions were finalized in this rule, along with a proposed third time exception, for 18 months. "All three spending exceptions are predicated on the principle that the financial and administrative burdens of arbitrage rebate should be removed from issuers who spend bond proceeds in a relatively short period of time" (Kutak Rock, 1993, p22).

On May 5, 1994 the Internal Revenue published final and temporary regulations in the Federal Register amending the final arbitrage regulations. For the purposes of this paper there were few meaningful changes. On June 27 and July 8, 1997 more final amendments were made. These amendments were technical in nature and have little application to this work.

### **Enforcement of the Act**

The Internal Revenue Service announced in March 1992 at a Public Securities Association meeting that it would institute audits of state and local issuers to ensure compliance with the 1986 Act. One Treasury official stated that the Service knew that some issuers had been playing the "tax lottery" because few issuers were audited (Municipal Finance Report, 1992, p7). In August 1995, IRS published a guide to assist their agents in performing examinations of tax-exempt bond issues. This information is

being included to help demonstrate the seriousness of this problem. The guidelines are as follows.

### **General Examination Procedures**

**Step 1 - Inform the issuer**

**Step 2 - Obtain access to the bond transcript**

**Step 3 - Review the relevant documents in the transcript**

**a) Offering documents:**

- (1) Official Statement or private placement memorandum; and
- (2) Bond purchase contract

**b) Basic legal documents:**

- (1) Trust indenture
- (2) Loan agreement
- (3) Tax regulatory agreement/land use restriction
- (4) Escrow agreement; and
- (5) TEFRA approval

**c) Certificates**

- (1) Underwriter's certificate
- (2) Arbitrage certificate; and
- (3) Other certificates (state law and federal securities)

**d) Legal Opinions**

**e) Other documents**

- (1) Verification report
- (2) Feasibility report
- (3) Engineer's report

**f) Documents not in the transcript**

- (1) Trustee records
- (2) Transferee records
- (3) Contracts for the use of the facility
- (4) Rebate calculations and Form 8038-T
- (5) Accounting records of the issuer or conduit borrower
- (6) Information about expectations before the issue date; and
- (7) Issuer elections

- Step 4 - Categorize the municipal financing arrangements
- Step 5 - Develop legal and factual questions
- Step 6 - Preliminary favorable determination
- Step 7 - Preliminary adverse determination
- Step 8 - Propose adverse determination

### **Taxing bondholders for adverse determinations**

1. If negotiations with issuer have failed, IRS may tax bondholders:
  - a) Collection through statutory notice of deficiency (Form 1040): or
  - b) Collection through Form 1099-INT if bonds are outstanding
2. Obtaining bondholders names
  - a) Often initiated when preliminary adverse determination issued (even if closing agreement being discussed)
  - b) Bondholders names requested from issuer and/or trustee

### **Special procedures for examining arbitrage matters**

1. Examination should include procedures to test both yield restrictions [Section 148(a)] and rebate [Section 148(f)] requirements
2. Procedures for examining arbitrage requirements
  - a) Determine which version of the arbitrage regulations applies
  - b) Compute the yield on the bonds
  - c) Compute the yield on investments allocated to the issue
  - d) Determine whether yield restrictions rules are violated; and
  - e) Compute rebate amount
3. Issuers may remedy certain arbitrage failures by:
  - a) Yield reduction payments for certain restricted funds; or
  - b) Penalty and interest in lieu of loss of tax exemption

### **Closing agreement procedures**

1. Issuers may be willing to enter into a closing agreement so that its bondholders are not taxed on the interest they receive
2. Procedures for coordinating a closing agreement
  - a) If agent believes a closing agreement is appropriate, memorandum sent to

National Headquarters

- b) If Service initiates, draft letter is sent to Headquarters
- c) If Headquarters approves, memorandum and letter sent to issuer
- d) Agent may negotiate closing agreement which must be approved by Headquarters; and
- e) After Headquarters approval, issuer must sign

3. Terms of closing agreement:

- a) Payment should be made before or at time agreement is signed
- b) Often includes a disclosure consent to permit IRS to discuss agreement if there has been a misrepresentation to the public (separate document)
- c) May require the bonds be redeemed early
- d) Determining the payment amount, and
  - (1) Total taxpayer exposure (tax on interest payments)
  - (2) Arbitrage profits
- e) Factors involved in arriving at payment amount:
  - (1) Time spent by IRS to examine
  - (2) Did issuer voluntarily bring problem to the attention of the Service
  - (3) Was the violation inadvertent; and
  - (4) Was the abuse severe

(First Southwest Management, Inc. 1997, p35-38)

This would be chilly reading to any city's staff who are in doubt about whether they are handling their arbitrage accounting correctly.

### **Arbitrage Payments**

The arbitrage section of the 1986 Tax Reform Act has left the Federal government much richer. The research shows that arbitrage payments by all types of governmental units have provided a significant amount of revenue to the Treasury. Below are the figures for the years 1987 through 1995, the last year available.

<b>Year</b>	<b>Amount</b>
1987	\$17,000,000
1988	\$16,200,000
1989	\$22,000,000
1990	\$72,000,000
1991	\$90,500,000
1992	\$290,990,000
1993	\$350,572,000
1994	\$485,000,000
1995	\$186,000,000
<b>Total</b>	<b>\$1,530,262,000</b>

( First Southwest Asset Management, Inc. *Basics of Arbitrage Compliance 1997 Edition*, p. 2)

This is an amazing amount of money. Documents which disaggregate the funds by types of governmental unit are unavailable. Therefore, it cannot be said with certainty how much city governments have paid to date.

The Internal Revenue Service continued to clamp down on flagrant abuses especially in arbitrage rebates. With proper planning public entities could take much of the worry out of the arbitrage rebate problems, according to Jeanna Barnard in an article in *American City & County*. She said "the problem that many public entities face today is establishing a systematic rebate arbitrage program that can effectively deal with the complexities of the tax law"( Barnard, 1994, p38 ). Barnard suggested that the following steps should be taken. This is being quoted because it is of such clarity and importance.

Identify all rebate bonds issued after December 31, 1985 and governmental bonds after August 31, 1986.

Check for exceptions from rebate; small-issuer exception, six-month spending exception, 18 month spending exception, two-year construction expenditure and finally investment in exclusively tax-exempt securities. Once rebate bonds are identified, a summary table with closing dates, principal amounts, bond yields and first rebate computation dates for each bond issue may be developed.

For each rebate bond, identify proceeds subject to rebate. The tax certificate or non-arbitrage certificate should set forth the amount of proceeds subject to rebate or the method for determining such amounts. All original bond proceeds, transferred proceeds and other allocable amounts subject to rebate over the life of each issue should be identified. Original bond proceeds consist of certain deposits made to the reserve proceeds, construction funds, debt service account and other uses of bond proceeds.

Proceeds remaining from a refunded bond that are reallocated or transferred to the associated refunding bond are transferred proceeds.

For some issues, there may also be allocable proceeds in funds such as a rate stabilization fund or reserve and contingency fund, and certain revenue deposits into debt service accounts may also be subject to rebate.

Calculate transferred proceeds and yield restriction amounts.

For rebate bonds that are refunding issues, the tax certificate will address compliance requirements associated with transferred proceeds. Since 1986, there have been several changes in the regulations with regard to the methodology to determine the amount and timing of transferred proceeds. Because amounts are often not specified or may be subject to change, transferred proceeds will need to be calculated and tracked. A portion of reserve fund amounts subject to rebate may also be subject to yield restriction. Generally, earnings held in the reserve funds must be yield restricted to the extent that allocable reserve moneys exceed 10 percent of sale proceeds of the rebate bond. Also, construction fund moneys that are unexpended after a specified period may be subject to yield restrictions. Track and account for rebatable proceeds. The next hurdle in preparation for compliance is to mesh rebate requirements with internal fund accounting and investment procedures. Essentially the question is: 'where is the money, when was it there, and what did it earn?' Tracking mechanisms are needed to identify the cash flow on invested proceeds of the rebate bond. Calculate the rebate. The impact of arbitrage rebate on the interest earning and budget for rebate payments must be disclosed if positive arbitrage has occurred. A planning document containing all preparatory data and tax counsel analysis will serve as an invaluable reference for those people responsible for calculating rebates and managing investments subject to rebate and yield restrictions (Barnard, 1994, p38).

All of these suggestions, by Barnard, point out how complex are the duties and the requirements on cities. The most difficult calculations are those that involve the complexities of federal law and allow for interpretation on variable-rate bonds, refunding, refunded bonds and commingled investment accounts. There can be several correct answers to a rebate calculation. "The differences between costs based on two legally and otherwise correct analysis can run into the hundreds of thousands or even millions of dollars"( Majors, 1996, p10).

### **Service Providers**

The complexity of calculations are often beyond the capability of many local governments. To meet the new demand consulting companies or new departments in existing companies were formed to perform rebate calculations for cities. There are more than 20 rebate-compliance providers in the United States which charge fees from \$1500 to \$2500 per compliance report. According to George Majors: "More than ten years after the public unveiling of the arbitrage requirement, municipalities and their consultants continue to struggle with both its administrative and economic implications" (Majors, 1996, p10).

### **Yield Burning**

Given the complexity and the amount of dollars involved, attempts were made to circumvent the regulations. This resulted in a new problem for the Treasury. The new target for the Treasury was called "yield burning". This occurs when an issuer concerned with avoiding the arbitrage rules pays inflated prices for Treasury obligations used for refunding escrow or reserve funds (*Journal of Taxation*, 1996, p102). An example of how this sometimes occurs is as follows: Issuers issue tax-exempt bonds. When the interest rates are more favorable, issuers will refund the outstanding bonds to lower their

debt service payments. At the time of the issuance of the refunding bonds, the old outstanding bonds may not yet be subject to redemption. When this is the case, the issuer deposits the proceeds of the refunding bonds in an escrow held by a corporate trustee and invests the proceeds in government securities until the old bonds are redeemable. In this example if the investment banker sold the treasury securities to the issuer at inflated market prices, thereby making a larger than normal profit, the resulting profit would be an example of "yield burning". The Securities and Exchange Commission is also investigating a technique that is not allowed under the arbitrage regulations. The broker-dealer selling the securities to the issuer could raise the price of the government securities, thus lowering the yield until the yield on the government securities equals that on the refunding bonds. This practice results in the arbitrage benefit being diverted to the broker-dealer. Because this type of "yield burning" is to the disadvantage to the Federal government, the arbitrage regulations require that any open market transaction be at arms length. A mark up of the securities to above the prevailing price raises the possibility of fraud. A dealer charging a higher than market price is charging a price that is excessive (*National Law Journal*, 1998, p2). The bond dealers argue that there are no federal rules regarding markup in debt transactions (*New York Law Journal*, 1998, p1). The Securities and Exchange Commission's first "yield burning" enforcement action was SEC Rauscher Pierce, civ 98-0027, in federal court in Phoenix. The SEC charged that Rauscher failed to inform a client, the Arizona Department of Administration, that Rauscher had charged inflated markups when it sold the state more than \$120 million in tax-exempt U.S. Treasury securities in 1992.

Another case involved the Duval County School Board, in Florida. Internal Revenue Service agents investigated if hundreds of thousands of dollars worth of trading profits taken by the School Board's financial advisor should disqualify a bond issue from tax-exempt status. "As previously reported, the Securities and Exchange Commission is investigating the School Board's 184.5 million dollar issue and has looked at deals in other



cities where there have been allegations that investment firms have overcharged issuers when executing the complex transaction used to refinance municipal bonds (Finotti, 1997, p8)". The School Board's financial advisor admitted that it had made more than \$430,000 in profit when it sold U.S. Treasury securities to the school system. The securities were used in the refinancing of outstanding bonds. Under the regulations contained in the 1986 Tax Reform Act if IRS determines that the profits are excessive, the agency could declare the bonds to be taxable.

*The New York Tax Journal*, in an article written in March of 1998, said that if the SEC prevails, the case could dramatically affect the municipal bond market as other broker-dealers could be forced to repay profits from earlier transactions.

In April 1998 the prediction made in the *New York Tax Journal* became reality. The Securities and Exchange Commission announced the first settlement of a "yield burning" case. Meridian Securities entered into a consent order that while they admitted to no wrong doing, did agreed to pay a total of \$3.8 million to resolve the claim (Securities and Exchange Commission, 1998, p1). According to the allegations in the order, Meridian engaged in a scheme to charge various school districts excessively high prices for U.S. Treasury securities. "Yield burning" is a fraud perpetrated on local governments and the taxpayers that compromises the integrity of the municipal securities market. "This case signals to municipal finance professionals that this conduct will be vigorously prosecuted", said Arthur Levitt, chairman of the Securities and Exchange Commission (Securities and Exchange Commission, 1998, p2).

As a result of the Meridian case the Internal Revenue Service began to swoop down on states and began to threaten to declare that billions of dollars of municipal and state bonds were taxable unless their treasurers agreed to pay taxes on supposedly excess gains their underwriters made. This restarted the debate about the 1986 Tax Reform Act. Many state and local government treasurers felt that IRS was being too aggressive. "The

problem is that the IRS is being somewhat aggressive and arbitrary, says Harlan Boyles, treasurer of North Carolina” (Plishner, 1998, p1).

“Yield burning was an attempt by investment bankers to make a lot of money”, says Nancy Mayer, general treasurer of Rhode Island. “The state and local issuers are flabbergasted that the IRS is after them rather than the investment bankers who profited at the expense of the federal treasury” (Plishner, 1998, p1).

One city, New Orleans, has begun to fight back. In a lawsuit that was filed June 17, 1998 in the Eastern District of Louisiana, the city is asking the court to force Smith Barney Inc., and BT Alex. Brown Inc. to pay any liability that the city might have if the IRS strips a 1991 municipal bond issue of its tax exempt status. This suit added to the debate about the fairness of the yield burning rules.(Doherty, 1998 , p1)

All of this activity began an outcry by governmental finance officers to have Congress rewrite the laws to make the bankers more accountable and not the governmental units. “That idea doesn’t fly in Washington, D.C. right now, we had meetings with various Treasury Department and White House officials when the enforcement issues started swirling, says the National Association of State Treasurers, we never heard back from them “ (Plisher, 1998, p1).

“Congress needs to rethink the rules laid down in the 1986 tax reforms. In its attempt to prevent clever state and local treasurers from nibbling at federal tax revenues—by investing the proceeds of tax-exempt bond issues in higher-yielding, otherwise taxable Treasury securities—Congress inadvertently gave sharks on Wall Street an incentive. The 1986 law limited the yield spread a state or municipality could get by investing in Treasury securities. But underwriters bought high-yielding securities and marked them up, “burning” the yields down (Plishner, 1998, p98)”.

## **A Texas City**

A review of Texas newspapers for stories about arbitrage rebate problems revealed a series of stories in the Houston Chronicle about the problems the city of Houston was having. One such story was written by Julie Mason and Bob Sablatura about the Internal Revenue Service investigation into the investment practices of the city. The issue was whether the city had improperly kept money that had been made by arbitrage (Mason, 1995).

According to this story, the city had paid the IRS \$466,115 in penalties in 1992-1993. In January 1996, the city of Houston signed a settlement with the IRS whereby the city agreed to pay \$1.7 million dollars in arbitrage rebates (Mason, 1996). This is the first proof found during the literature review of a problem caused by the law for a Texas city.

## **Recommended Solutions**

There have been problems for other governmental units. This is best demonstrated by the information coming from the Government Finance Officers Association. "The federal arbitrage restrictions make up one of the most complex areas of tax law and the arbitrage rebate requirement is perhaps the most costly provision for state and local governments included in the 1986 Tax Reform Act" (GFOA Fact Sheet, 1998). The "Fact Sheet" produced by the GFOA also says that there are enormous costs for a governmental unit to comply with the law. "Issuers are required to perform numerous tests, and calculations for each of their outstanding bond issues that divert staff resources from important governmental activities. Furthermore, these governments must undertake significant ongoing expenditures for legal advice, investment advice, computer and accounting support, records storage, and general management oversight" (GFOA, 1998). The GFOA has proposed an amendment to the 1986 Act, which would clarify and

simplify the Act. These proposals provide that the municipal bonds that are issued would not be subject to a earned arbitrage rebate if the following conditions were met:

1. the issue is a new money issue;
2. the issuer reasonably expects to spend 15 percent of the bond proceeds within one year of the date of the bond issue and at least 95 percent in three years of the date of the issue;
3. the bonds are governmental bonds or are private activity bonds for governmental owned facilities that are exempt from the state volume cap;
4. the bonds are fixed rate;
5. the bonds are long-term (i.e. the average weighted maturity is greater than five years);  
and
6. if a bond-finance reserve fund for the issue exists, it will be yield-restricted.

(Government Finance Officers Association, <http://www.gfoa.org/facts/arbitrage1.hrt>)

This proposal has been endorsed by 18 other state and local organizations including the National League of Cities, the National Association of State Treasurers and the National Governors' Association.

The President and his staff have begun to listen. On April 14, 1997 President Clinton put forward a simplification plan for tax-exempt bonds. This proposal is similar to the one proposed by the Government Finance Officers Association.

The Treasury has made recommendations that contain changes in the 1986 Act. One change would require some proof that 15 percent of the funds had been expended in the first year as opposed to a determination made prior to the sale of the bonds. Long term bonds would be defined to include bonds with a weighted average maturity of at least 10 years as opposed to five years.

The Treasury proposal would expand the \$5 million dollar small-issuer exception to \$10 million. The loss of revenue over a five year period to the Treasury would be \$59

million dollars. This is far less than the cities, counties and states are currently paying in annual compliance costs. (County News, 1997, p2)

This concludes the review of the literature on the 1986 Tax Reform Act and the consequences. It seems to be apparent that the 1986 Tax Reform Act has caused hardships and increased costs and risks to governmental units and their advisors. It appears to be overly complex, even for tax law. It also appears from our review that the Internal Revenue Service seems to be very aggressive in enforcing the provisions of the Act against both state and local governments.

### **Conceptual Framework**

The conceptual framework is the device used to organize the empirical portion of this Applied Research Project. The working hypotheses was defined and categories are used to describe relevant aspects of the 1986 Tax Reform Act. The key categories are found in bold in the discussion that follows.

This ARP will look at significant parts of the **1986 Tax Reform Act** and the parts of the various amendments of the Act by the Internal Revenue Service. As part of the attempt to understand the Act, a review of the **compliance requirements** required by the cities was performed.

One of the difficulties that has arisen because of the passage of the Act and the subsequent enforcement by the Internal Revenue Service is an activity called “**yield burning**”. The effects on the larger Texas cities are examined. The size of the **outstanding bond debt** is also of interest.

It will also be of importance and interest to see if there have been significant **arbitrage rebate** payments to the Internal Revenue Service by the larger Texas cities. There are now a list of **recommended changes** and solutions by the Government Finance Directors Association. The paper asks the finance directors if they are aware of those recommendations and if they agree with all of the proposed changes.

Lastly there is an effort to discover if, in the opinion of the city finance directors, there have been projects that have not been built in their cities because of the rebate payment requirements. To say it another way, have there been any **lost building opportunities**.

The review of the literature has established that the 1986 Tax Reform Act and the later amendments are complex and far reaching. The literature fails to provide, however, the opinions of those experts most affected---city finance directors. This study is an attempt to shore up that gap in the literature.

This study also investigates whether finance officers from large and small issuers of debt cities have different opinions about the influence of the 1986 Tax Reform Act. A hypothesis is the conceptual framework used to address this question. The hypothesis is: Large issuers of debt will have different views about the 1986 Tax Reform Act than small issuers of debt.

A mail survey was sent to the finance officers to help understand how the Act has affected their cities. This information was then tested against the working hypotheses to see if they have validity.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **Purpose of Chapter**

The methodology used to address the research question is described in this chapter. Survey research was used to assess the opinions of the finance directors of the larger Texas cities. The 40 largest Texas cities were surveyed. The smallest city has a population of 58,000 citizens. These cities because of their size are expected to be the most active in issuing tax-exempt debt (See Appendix A for a list of the 40 cities).

#### **Survey Research**

According to Babbie, surveys are used for descriptive, explanatory, and exploratory purposes (Babbie, 1995, p257). They are used mainly in studies where the unit of analysis is individuals. Babbie says that survey research is probably the best method available to the social scientist interested in collecting data where the population is too large to interview individually. Surveys are also economical, they are a cheap way to gather data. Because all of the respondents are asked the same question, the data is easy to analyze.

Survey research has several weaknesses. One, standardized questions often represent the simplest responses. This means that some of the responses could be artificial and perhaps not well thought out (Babbie, 1995 p273).

#### **The Survey Instrument**

The survey instrument used in this study was developed using the key ideas found in the literature review. Most of the items in the 3 page 16 question questionnaire consisted of simple yes/no responses. Questions dealing with dollar amounts presented

respondents with a range of choices. See Appendix D for an example of the questionnaire.

This survey was pre-tested by Randee Wilson, the Director of Compliance Services for First Southwest Company. Ms. Wilson is head of a department that has twelve accountants who perform arbitrage rebate services for over two hundred and twenty five governmental units in Texas and several hundred other governmental units outside of Texas. She is a well recognized expert in her field.

### **Sampling Issues**

The questionnaire items and key categories are linked in table 3.1. See Appendix E for a complete listing of responses.

### **Statistics/Statistical Package**

Because this study is descriptive, simple descriptive statistics such as percent distributions, modes and means are used. The data was analyzed using Statistical Package for the Social Sciences (SPSS).

It is expected that the finance directors will be aware of the 1986 Tax Reform Act and know the amount of their city's outstanding bonds. Further, it is anticipated that the finance directors will have concerns and opinions about compliance with the law and the problems associated with yield burning. The directors will also be aware of the costs of arbitrage rebates both in dollar amounts and in lost building opportunities for their cities.

It is expected that the larger issuers of debt will have a different view of the 1986 Tax Reform Act than the smaller issuers of debt.



## Operationalization

**TABLE 3.1**  
**OPERATIONALIZATION OF THE CONCEPTUAL**  
**FRAMEWORK**

Concept	Questionnaire Item
1986 Tax Reform Act	Questionnaire Item 1
Compliance	Questionnaire Items 2, 3, 4, 5, 6, 7
Yield Burning	Questionnaire Items 8, 9
Amount of Outstanding Bonds	Questionnaire Item 10
Arbitrage Rebates	Questionnaire Items 11, 12
Amendments	Questionnaire Item 13
GFOA Recommendations	Questionnaire Item 14
Recommended Solutions	Questionnaire Items 14, 15
Lost Building Opportunity	Questionnaire Item 16

## **CHAPTER 4**

### **RESULTS**

#### **Introduction**

This chapter presents the findings of the survey and the presentation of results. The conceptual framework helped to organize the survey. The interpretation of the information received is discussed in this chapter.

#### **Demographics**

The survey was sent to the forty largest cities in Texas. It was addressed to the finance directors, twenty five surveys were returned. Table 4.1 shows the frequency and the percentage of the directors that participated that were aware of the 1986 Tax Reform Act...It appears from the responses that the three largest cities did not respond to the questionnaire. Therefore, the data does not allow a comparison between large and small issuers. Hence, the results refer to medium size cities.

#### **Awareness of the Act**

<b>TABLE 4.1</b>			
<b>Question on Awareness of 1986 Act (N=25)</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
<b>Are you aware of the Act?</b>	<b>Yes</b>	<b>25</b>	<b>100.0</b>

All of the respondents answered yes to this question. It was important to know that the finance directors had knowledge of the Act before they began answering questions about its effects. A detailed item by item presentation of the survey results are found in Appendix E.

## Compliance

<b>TABLE 4.2</b>			
<b>Compliance Issues(N=25)</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Is the Act difficult?	Yes	21	84.0
Are calculations performed in house?	Yes	2	8.0
Were additional employees hired?	Yes	4	16.0
Do outside consultants perform the work?	Yes	24	96.0
How much are they paid?	\$2,000 (mode)	11	45.8
Does cost exceed deduction?	Yes	7	29.2

Table 4.2 includes all of the answers that deal with the various questions about compliance. The finance directors by a high percentage (84%) said that they believe that the Act is difficult to comply with and understand.

It has now been established that the Act is perceived as difficult. Do cities perform the calculations needed, in house? The overwhelming response was no, (92%).

When the survey was written, it was not known if the cities used additional employees to comply with the Act. The question was asked in order to determine if requirements such as the arbitrage rebate requirement had caused additional employees to be hired by the city, the answer was no, (84%). This response was somewhat of a surprise because of the difficulty of the Act. But, as the table shows, a large percentage of the cities hire outside consultants to do the calculations (96%). The majority (62.5%) of the cities pay between \$1,000 and \$2,000 per report and these amounts are allowed as deductions by the Act, so for most (70%), the cost does not exceed the deduction. The mode dollar amount paid consultants was \$2,000.

## **Yield Burning**

<b>TABLE 4.3 (N=25)</b> <b>Questions On Yield Burning</b>			
<b>Questions</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Familiar with term?	Yes	22	88.0
Discussions with IRS?	Yes	1	4.0

Table 4.3 contains the two questions that were asked about “yield burning”. This issue was addressed in the literature review. It is the practice of an investment banker selling securities to a municipal client at an inflated price. Even though the wrongdoer is the banker the statute called for the municipal client to pay the penalty. The first question about the familiarity of the term discloses that 88% of the cities know about “yield burning”. Only one respondent had discussions with IRS about “yield burning”. This seems to say that Texas cities are generally not having a compliance problem.

## **Outstanding Bonds**

<b>TABLE 4.4 (N=25)</b> <b>Amount Of Outstanding Bonds</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Amount of Outstanding Bonds	-\$50,000,000 (mode)	13	52.0

This question regarding outstanding bonds was asked to see if there was a difference between the larger issuers of debt and the smaller issuers of debt to determine if the responses were different. Most of the respondents (52%) had outstanding bonds below \$50,000,000, this was the lowest range on the questionnaire.

## Arbitrage Rebates

<b>TABLE 4.5 (N=25)</b> <b>Questions About Arbitrage Rebates</b>			
<b>Questions</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
<b>Paid rebates to IRS?</b>	<b>Yes</b>	<b>14</b>	<b>56.0</b>
<b>Ranges of rebates</b>	<b>-\$100,000 (mode)</b>	<b>9</b>	<b>64.3</b>

A little more than half of the cities (56%) had paid some money to IRS for income from arbitrage.

The amounts paid for 64% of the respondents were less than \$100,000,000 per city. Another 14% had paid between \$100,000 and \$300,000 dollars.

## Government Finance Officers Association

<b>TABLE 4.6 (N=25)</b> <b>Questions On Familiarity With Government Finance Officers Association Recommendations</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
<b>Are you familiar with the suggestions made by GFOA?</b>	<b>Yes</b>	<b>12</b>	<b>48.0</b>

Table 4.6 does show the question that was asked about whether the finance directors felt that the Act should be amended. There was an overwhelming response in favor of amending the Act (96%).

Table 4.6 displays the answer to the question about the directors' familiarity with the Government Finance Officer Association's very detailed recommendations about how the

Act should be amended. Only 48% of the respondents were familiar with the recommendations. This percentage was less than anticipated, but still significant.

### Recommended Solutions

<b>TABLE 4. 7 (N=12)</b> <b>Questions on Recommended Solutions</b>			
<b>Questions</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
New money Issue	Yes	11	91.7
Issuer uses 95% in 3 years	Yes	11	91.7
Governmental bonds	Yes	11	100.0
Fixed rate bonds	Yes	11	91.7
Long term bonds	Yes	11	91.7
Reserve fund	Yes	6	50.0

The set of questions asked in table 4.7 corresponds exactly with the recommendations of the Government Finance Officers Association. The respondents to these questions represented 12 of the 25 cities that responded to the questionnaire. This set of questions attempted to see if the finance directors of Texas cities agreed with most of the recommendations of the GFOA on needed reforms to the 1986 Tax Reform Act.

Of the six questions that were asked there was a large response in favor of those recommendations, the range of approval was from 100% to 91.7%. All of the respondents (12) were familiar with the recommendations, so the fact that they were heavily in favor is not in itself surprising. However it is interesting to note that only half of the respondents agreed with the GFOA that income on reserve funds should also be exempt. This seems to represent a more conservative approach than that of GFOA. It can be safely concluded that the finance directors who are aware of the GFOA recommendations are in support of them.

What has also been learned is that the GFOA needs to increase the awareness of their recommendations.



## Lost Building Opportunities

<b>TABLE 4. 8 (N=25)</b> <b>Question On Delay On Infrastructure</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Has the law caused a delay in infrastructure building?	No	18	72.0

There was a great deal of interest in some parts of the financial community about this question. As this survey was being prepared there was widespread concern that the Bankers Act was delaying construction throughout Texas. Contrary to expectations the finance officers did not believe the infrastructure construction was delayed (72%).

## Issuers of Debt

<b>Table 4.9 (N=25)</b> <b>Issuers of Debt Responses</b>			
<b>Question</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>
Estimate the amount of outstanding bonds subject to arbitrage rules	-\$100,000,000	19	76.0
Would you like to see the 1986 Tax Reform Act amended?	Yes	24	96.0

One of the objectives of this ARP was to determine if there is a difference in opinion between cities that are large issuers of debt and smaller issuers of debt. The information that was received was inconclusive because most of the finance directors that chose to

respond to the questionnaire were from the smaller issuers of debt. Table 4.9 is an attempt to use the information that was received.

The first question in Table 4.9 shows that most of the respondents are from the smaller categories of debt that are subject to arbitrage rebate rules. The two smallest categories on the questionnaire were chosen by the respondent most of the time (76%).

When the question was asked "would you like to see the 1986 Tax Reform Act amended?", a very high percentage (96%) responded, yes. Perhaps the point could be made that there seems to be little distinction between the opinions of the finance directors regardless of the size of the outstanding debt, but there is not enough information to make this determination with certainty.

## CHAPTER SIX

### CONCLUSION

This project was begun with the following working hypotheses: *It is expected that the finance directors will be aware of the 1986 Tax Reform Act and know the amount of their city's outstanding bonds. Further, it is anticipated that the finance directors will have concerns and opinions about the compliance with the law and the problems associated with yield burning. The directors will also be aware of the costs of arbitrage rebates both in dollar amounts and in lost building opportunities for their city. It is expected that the larger issuers of debt will have a different view of the Act than the smaller issuers of debt.* These hypotheses were developed based on the literature review, personal experiences and a desire to see if they were correct. There are several items that have been learned from this APR project. First, there seems to be little difference in opinion about the Act between the cities, regardless of size. It did not matter if the city responding was on the small end of the scale or on the larger end of the scale. They all appeared to believe about the same thing.

Secondly, there seems to be widespread agreement between the cities about the difficulty and complexity of the Act. This led to the firm responses that the Act should be amended. Among the respondents who knew about the GFOA recommendations there was widespread support for the changes.

Thirdly, while there has been a great deal of financial press reporting about the problems associated with "yield burning", this was not reported as a problem for Texas cities. Fourthly, most cities are paying some sort of money to the IRS as a result of the Act, however, it does not seem to be so large as to be affecting how they go about their job of financing needed infrastructure improvements.

In concluding I would have to say that the mayors of 1986, one of whom was me, could have been more attentive to the details contained in the 1986 Tax Reform Act. Our

inattention to what was left in the Act after we won the battle on keeping the interest on our bonds tax free, caused the cities a problem. It is unknown if the harshness of the arbitrage restrictions and the restriction on yield burning were a partial result of our victory in keeping the interest exemption. Perhaps that is a topic for someone else to pursue. It is my hope that the Congress and the White House will continue to listen to the very good recommendations of the Government Finance Officers Association. The response to my survey clearly shows that the finance officers of Texas cities agree.

## **APPENDIX A**

### **List of Officials and Texas Cites that Received Questionnaire**

Jorge G. Cruz-Aedo  
Director of Finance and Administration  
City of Houston

Octavio Pena  
Acting Director of Finance  
City of San Antonio

William Chapman  
Director of OMB  
City of El Paso

Jack Eastwood CPA  
Director of Finance  
City of Arlington

John F. McGrane  
Director of Finance  
City of Plano

Pat Parrish  
Operating Budget Supervisor  
City of Dallas

Betty Dunkerley  
Director of Finance  
City of Austin

James R. Keyes  
Director of Finance  
City of Ft. Worth

Mike Sferra  
Contracts/Fund Administrator  
City of Corpus Christie

George Kauffman  
Managing Director of Financial Services  
Garland, Texas  
Betty Bucy, CPA  
Finance Director  
City of Lubbock

C.M. Hein, Jr.  
Director of Financial Services  
City of Laredo

Wayne F. Long, CPA  
Controller  
City of Pasadena

Donald W. Simmons  
Director of Finance  
City of Mesquite

David M. Wright  
Director of Finance  
City of Abilene

Janice Andrews  
Director of Finance  
City of Waco

Robert B. Scott  
Chief Finance Officer  
City of Carrollton

Catherine Busse Duncan  
Financial Services Director  
City of Irving

Dean Frigo  
Director of Finance  
City of Amarillo

Pete Gonzalez  
Finance Director  
City of Brownsville

Andrea S. Deaton  
Budget Officer  
City of Beaumont

Elizabeth Walley  
Director of Finance  
City of Grand Prairie

Jim Dockery  
Director of Finance/Administration  
City of Wichita Falls

Troy A. Gifford  
Director of Finance  
City of Midland

James Zentner  
Finance Director  
City of Odessa

Jerry W. Dale  
Finance Director  
City of McAllen

Connie J. Green  
Director of Finance  
City of Killeen

Al Milligan, CPA  
Director of Financial Services  
City of Longview

Chris Rodriguez  
Budget Management Assistant  
City of Denton

Michael A. Conduff  
City Manager  
City of Bryan

Gilbert P. Reyna, Jr.  
Director of Finance  
City of Victoria

Susan A. Bailey  
Director of Finance  
City of Galveston

Michael T. Dane, CPA  
Director of Finance  
City of San Angelo

Rosie Vela, CPA  
Director of Finance  
City of Richardson

Daniel Crawford  
Chief Finance Officer  
City of Tyler

Teri Macon  
Budget Officer  
City of Baytown

Joe C. Barrett  
Director of Finance  
City of Lewisville

Charles Cryan  
Director of Fiscal Services  
City of College Station

Diane Breedlove  
Director of Finance  
City of Sugar Land

Rebecca Underhill  
Director of Finance  
City of Port Arthur



## **APPENDIX B**

### **Copy of Letter to Finance Directors**

Mr. Finance Director  
Anywhere City, Texas

Dear Director,

As a former mayor of a Texas city I have had a long interest in the 1986 Tax Reform Act and what impact it may or not have on Texas cities.

At the present time I am using my night hours to work on an applied research project for a Masters of Public Administration degree at Southwest Texas State University. As you will see by the enclosed questionnaire, I have decided to apply my long interest in Texas cities to this project.

I know how busy you are, but I would be most grateful if you would take time to answer the questionnaire and return it to me in the postage paid envelope I have provided.

Sincerely,

Charles R. Matthews

## **APPENDIX C**

### **Copy of Letter to Dr. Granof asking for permission to use certain definitions**

January 5, 1999

Dr. Michael H. Granof  
Accounting Professor  
University of Texas at Austin  
Department of Accounting  
CBA 4m 246  
Austin, Texas 78712-1172

Dear Dr. Granof,

I am using my nights to pursue a Masters of Public Administration degree at Southwest Texas State University. My applied research project is on the 1986 Tax Reform Act.

In the process of working on my paper it has been suggested by my advisor, Dr. Pat Shields that I needed a glossary of terms because of the technical nature of the paper.

Some of the best set of terms I have found is in your Government and Not-For-Profit Accounting textbook. I have provided a list of the terms that I have taken from your glossary of terms.

I am asking for your permission to use these terms in my paper. If this is possible I would appreciate your permission.

Sincerely,

Charles R. Matthews

*Permission received on January 19, 1999.*

## **APPENDIX D**

### **QUESTIONNAIRE**

**PLEASE CIRCLE THE APPROPRIATE ANSWER**

1. Are you aware of the 1986 Tax Reform Act and it's arbitrage rebate requirements?

Yes No

2. In your opinion does your city find the Act difficult to understand and to comply with?

Yes No

3. Does your city perform the arbitrage calculations in house?

Yes No

4. In your opinion has your city had to hire additional employees to comply with the Act.

Yes No

5. Do you hire outside consultants to perform the calculations?

Yes No

6. How much are they paid per report?

\$1,000.00 \$2,000.00 \$3,000.00 \$4,000 \$5,000 \$6,000 More

7. If you use an outside consultant to perform arbitrage rebate calculations for the city, does the cost exceed the amount the Act allows as a deduction?

Yes No

8. Are you familiar with the term "yield burning"?

Yes No

9. Has your city had a discussion with IRS regarding "yield burning"?

Yes No

10. Can you provide a rough estimate as to the outstanding bonds your city has that are subject to the arbitrage rebate rules.

Less than \$50,000,000

\$50,001,000 to \$100,000,000

\$100,001,000 to \$150,000,000

\$150,001,000 to \$200,000,000

\$200,001,000 to \$250,000,000

\$250,001,000 to \$300,000,000

Greater than \$300,001,000

11. Has your city paid arbitrage rebates to IRS?

Yes No

12. Please indicate the following ranges that most closely approximates your total payments to date.

Less than 100,000

\$101,000 to \$300,000

\$301,000 to \$500,000

\$501,000 to \$700,000

\$701,000 to \$900,000

\$901,000 to 1,100,000

\$1,101,000 or greater

13. Would you like to see the 1986 Tax Reform Act amended?

Yes No

14. Are you familiar with the suggestions made by the Government Finance Officers Association in regards to amending the Act?

Yes No

**If you have answered yes to the preceding question then please answer the questions about the Government Finance Officers Association recommendations.**

15. The GFOA arbitrage rebate safe-harbor proposal provides that after the date of enactment an issuer of municipal tax-exempt bonds would not be deemed to have earned arbitrage subject to rebate requirements if all of the following conditions are met. Do you agree with the following recommendations?

a. The issue is a new money issue.

Yes No

b. The issuer reasonably expects to spend 15 percent of the bonds within one year of the date of the bond issue and at least 95 percent within three years of the date of issue.

Yes No

c. The bonds are governmental bonds or are private activity bonds for governmentally owned facilities that are exempt from the state volume cap.

Yes No

d. The bonds are fixed-rate.

Yes No

e. The bonds are long-term (i.e., the average weighed maturity is greater than five years).

Yes No

f. If a bond-financed reserve fund for the issue exists, it will be yield-restricted.

Yes No

16. Do you believe that the arbitrage rebate law has caused your city to delay or not build some infrastructure?

Yes    No

## **APPENDIX E**

### **COMPLETE RESULTS FROM THE SURVEY**

The questionnaire was sent to the finance directors of forty cities. Twenty five of those directors responded by filling out the questionnaire. The response rate was 62.5 percent. A breakdown of the response of each of the questions is provided in an effort to clearly share the information.

#### **Question #1**

**Are you aware of the 1986 Tax Reform Act and it's arbitrage rebate requirements?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	25	100.0	100.0	100.0

There were 25 valid cases and no missing cases. Before there could be a valid questionnaire there had to be responses from the finance directors that they were aware of the Act. With a 100% response rate that has now been clearly established. This will make the remaining parts of the questionnaire meaningful.

#### **Question #2**

**In your opinion does your city find the Act difficult to understand and comply with?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	4	16.0	16.0	16.0
Yes	1	21	84.0	84.0	84.0

There are twenty five valid cases. The mean is .840 and the standard deviation is .374. The t-value was 11.22 and the 2-tail significance was .000, which is a significant difference. The response clearly shows that the finance directors find the Act difficult.

### **Question #3**

**Does your city perform the arbitrage calculations in house?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	23	92.0	92.0	92.0
Yes	1	2	8.0	8.0	100.0

There are twenty five valid cases. The mean is .080 and the standard deviation is .277. The t-value was 1.44 and the 2-tail significance was .161, which is not significant. This could mean that because of the difficulty of the Act 92% of the respondents felt the need to use outside consultants.

### **Question #4**

**In your opinion has your city had to hire additional employees to comply with the Act.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	21	84.0	84.0	84.0
Yes	1	4	16.0	16.0	100.0

There were twenty five valid cases. The mean was .160 and the standard deviation was .374. The t-value was 2.14 and the 2-tail significance was .043, which is significant. The overwhelming opinion was that there had not been a need to hire additional employees to comply with the Act. This answer neatly tracks the previous answer, in that the cities have hired outside consultants instead of doing the calculations in house.

### **Question #5**

**Do you hire outside consultants to perform the calculations?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	4.00	4.0	4.0
Yes	1	24	96.0	96.0	100.0

There are twenty five valid cases. The mean is .960 and the standard deviation is .200. The t-value was 24.00 and the 2-tail significance was .000, which denotes a significant



difference. After the finance directors were asked if they did the work in house, and then if they hired additional employees they have with this answer told us that they do indeed use outside consultants to do the work.

**Question #6**  
**How much are they paid per report?**

The information analyzed from this question only applies to the finance directors who answered no to question number five.

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
\$1,000	1	4	16.7	16.7	16.7
\$2,000	2	11	45.8	45.8	62.5
\$3,000	3	4	16.7	16.7	79.2
\$4,000	4	0	0	0	79.2
\$5,000	5	2	4.2	4.2	87.5
\$6,000	6	0	0	0	87.5
More	7	1	4.2	4.2	91.7
No respon.	8	2	8.3	8.3	100.0

There are twenty four valid cases. The mean is 3.24 and the standard deviation is .494. The t-value was 6.56 and the 2-tail significance was .000, which is a significant difference. In this answer, the finance directors report that they pay a wide range of fees. The most commonly paid fee is \$2,000 which is paid by 45.8 percent of the respondents.

**Question #7**  
**If you use outside consultants to perform arbitrage rebate calculations for the city, does the cost exceed the amount the Act allows as a deduction?**

The responses do not include the one city who answered no to question #5.

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	12	50.0	50.0	50.0
Yes	1	7	29.2	29.2	79.2
No respon.	9	5	20.8	20.8	100.0

There were a total of 24 answers. The mean was 2.4 and the standard deviation was 3.719. The t-value was 3.23 and the 2-tail significance was .004, which is a significant difference. The response to this question seems to say that the IRS has the \$3,000 that is allowed for the preparation of the mandated reports, correct.

**Question #8**  
**Are you familiar with the term “yield burning”?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	3	12.0	12.0	12.0
Yes	1	22	88.0	88.0	100.0

There were twenty five valid cases. The mean was .8800 and the standard deviation was .332. The t-value was 13.27 and the 2-tail significance was .000, so there is a significant difference. The respondents tell us that 88% of them are familiar with the term “yield burning”, the biggest surprise was that there were three finance directors who did not recognize the term.

**Question #9**  
**Has your city had a discussion with IRS regarding “yield burning”?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	24	96.0	96.0	96.0
Yes	1	1	4.0	4.0	100.0

There are twenty five valid cases. The mean is .0400 and the standard deviation is .200. The t-value is 1.00 and the 2-tail significance is .327 which is not a significant difference. Only one city responded that they had conversations with IRS regarding ‘yield burning’. This seems to indicate that most cities are not having problems with their investment bankers in regards to the practice of “yield burning”.

### Question #10

**Can you provide a rough estimate as to the outstanding bonds your city has that are subject to the arbitrage rebate rules.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
-50,000,000	1	13	52.0	52.0	52.0
\$50,001,000 to \$100,	2	6	24.0	24.0	76.0
\$100,000,00 to \$150,	3	1	4.0	4.0	80.0
\$200,001,000 to \$250,	5	1	4.0	4.0	84.0
+\$300,001,000	7	2	8.0	8.0	92.0
No response	9	2	8.0	8.0	100.0

There were twenty five valid cases. The mean was 2.600 and the standard deviation was The t-value was 5.00 and the 2-tail significance was .000 which is a significant difference.

This question was used in the questionnaire to provide an indication of the size of the cities that responded to the survey. The premise was, the smaller debt, the smaller the city. The survey was sent to the forty largest cities in Texas. The smallest of the cities had a population of about 40,000 citizens. Thirteen of the respondents had debt of less than \$50,000,000. Next were cities with debt of \$50,001,000 to \$100,000,000, here another six cities fell into this category. When the two categories are taken together, the respondents accounted for 76% of the twenty five cities that responded to the questionnaire.

### Question #11

**Has your city paid arbitrage rebates to IRS?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	10	40.0	40.0	40.0
Yes	1	14	56.0	56.0	96.0
No respon.	9	1	4.0	4.0	100.0

There were twenty five valid cases. The mean was .9200 and the standard deviation was .2800. The t-value was 2.62 and the 2-tail significance was .015 which is a significant difference. Fifty six percent of the respondents have paid arbitrage rebates to IRS.

#### **Question #12**

**Please indicate the following ranges that most closely approximates your total payment to date.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
-\$100,000	1	9	64.3	64.3	64.3
\$101,000 to \$300,	2	2	14.3	14.3	78.6
\$501,000 to \$700,	4	2	14.3	14.3	92.9
+\$1,101,000	7	1	7.1	7.1	100.0

There were twenty five valid responses. The mean is 1.0000 the standard deviation is .8000. The t-value is 4.16 and the 2-tail significance is .001 so there is a significance difference. Sixty four percent of the cities have paid amounts under \$100,000 to IRS are arbitrage rebates.

#### **Question #13**

**Would you like to see the 1986 Tax Reform Act amended?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	4.0	4.0	4.0
Yes	1	24	96.0	96.0	100.0

There were twenty five valid responses. The mean was .9600 and the standard deviation was .200. The t-value was 24.00 and the 2-tail significance was .000, this is a significant difference.

The response of ninety six percent of the finance directors to the statement that they would like to see the Act amended is very high and speaks to the problems the cities have having with the Act.

#### **Question #14**

**Are you familiar with the suggestions made by the Government Finance Officers Association in regards to amending the Act?**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	12	48.0	48.0	48.0
Yes	1	12	48.0	48.0	96.0
No response	9	1	4.0	4.0	100.0

There were twenty five valid responses. The mean was .8400 and the standard deviation was 1.772. The t-value was 2.37 and the 2-tail significance was .026 which is a significant difference.

This response was somewhat surprising in that over half of the finance directors had not heard of the recommendations of the Government Finance Officers Association regarding proposed changes to the Act. It is of particularly interesting when the survey showed that 96% of the respondents thought the Act should be amended.

#### **Question #15**

**The GFOA arbitrage rebate safe-harbor proposal provides that after the date of enactment an issuer of municipal tax-exempt bonds would not be deemed to have earned arbitrage subject to rebate requirements if all of the following conditions are met. Do you agree with the following recommendations?**

**THIS QUESTION WAS ONLY ANSWERED IF THEY ANSWERED THE PREVIOUS QUESTION YES.**

##### **#15 a.**

**The issue is a new money issue.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	8.3	8.3	8.3
Yes	1	11	91.7	91.7	100.0

There were twelve valid responses. The mean is .9167 and the standard deviation is .289 the t-value is 11.00 and the t-tail significance is .000, which is a significant difference.

**#15 b.**

**The issuer reasonably expects to spend 15 percent of the bonds within one year of the date of the bond issue and at least 95 percent within three years of the date of issue.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	8.3	8.3	8.3
Yes	1	11	91.7	91.7	100.0

There were twelve valid responses. The mean was .9167 and the standard deviation was .289. The t-value was 11.00 and the 2-tail significance was .000, which is a significant difference.

**#15 c.**

**The bonds are governmental bonds or are private activity bonds for governmentally owned facilities that are exempt from the state volume cap.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	1	12	100.0	100.0	100.0

**#15 d.**

**The bonds are fixed rate.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	8.3	8.3	8.3
Yes	1	11	91.7	91.7	100.0

There are twelve valid cases. The mean is .9167 and the standard deviation is .289. The t-value is 11.00 and the 2-tail significance is .000.

**#15 e.**

**The bonds are long-term (i.e., the average weighed maturity is greater than five years).**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	1	8.3	8.3	8.3
Yes	1	11	91.7	91.7	100.0

There were twelve valid cases. The mean is .9167 and the standard deviation is .289.  
The t-value is 11.00 and the 2-tail significance is .000.

#### #15 f.

**If a bond-finance reserve fund for the issue exists, it will be yield restricted.**

Value Label	Value	Frequency	Percent	Valid Percent	Cumulative Percent
No	0	6	50.0	50.0	50.0
Yes	1	6	50.0	50.0	50.0

There are twelve valid responses. The mean is .5000 and the standard deviation is .522.  
The t-value is 3.32 and the 2-tail significance is .007.

Question fifteen has to be reviewed by looking at responses from 15 a. to 15 f., the respondents seem generally agree with the proposed changes by the GFOA.

### **Question #16**

**Do you believe that the arbitrage rebate law has caused your city to delay or not build some infrastructure?**

<b>Value Label</b>	<b>Value</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
No	0	18	72.0	72.0	72.0
Yes	1	1	4.0	4.0	76.0
No response	9	6	24.0	24.0	100.0

There were twenty five valid responses. The mean was 2.2000 and the standard deviation was 3.905. The t-value was 2.82 and the 2-tail significance was .010, which is a significant difference.

The response to the question leaves little doubt that in the minds of most of the finance directors there has been no delay in building needed infrastructure because of the Act.



## **APPENDIX F**

### **GLOSSARY OF TERMS**

**Advance refunding** - Issuance of debt to retire outstanding bonds or other debt instruments prior to their maturity or call date.

**Arbitrage** - The concurrent purchase and sale of the same or an equivalent security in order to profit from differences in interest rates. Generally, as it relates to state and local governments, the issuance of debt at relatively low, tax-exempt, rates of interest and the investment of the proceeds in taxable securities yielding a higher rate of return.

**Bond discount** - The excess of a bond's stated value over the amount paid to acquire the bond. Bonds are issued at a discount so that the return to investors is equal to the prevailing market rate, even though the prevailing market interest rate is higher than the interest rate stated on the bond.

**Bond refunding** - The issuance of new bonds to replace bonds already outstanding, usually with the intent of reducing debt service costs.

**Face value** - As applied to securities, the amount indicated on the face of a bond that will have to be paid at maturity.

**General obligation debt** - Debt that is secured by the full faith and credit of the issuing body.

**Government Finance Officers Association (GFOA)** - An association of state and local governments and officials and other individuals interested in state and local government finance.

**Industrial development bonds** - Bonds issued by governmental units at low interest rates to encourage private development in their area. Repayment of the debt is expected to be the responsibility of the beneficiary of the bond.

**Infrastructure assets** - Public domain fixed assets such as roads, bridges, curbs, gutters, streets and sidewalks, drainage systems, lighting systems, and similar assets that are immovable and of value only to the governmental unit.

**Issue costs** - Costs incurred to issue bonds, such as amounts paid to underwriters, attorneys, accountants, and printers.

**Long-term debt** - In government, obligations that are not expected to be paid with currently available financial resources. In not-for-profit, obligations that are not expected to be paid in cash or operating assets within one year or the entity's normal operating cycle.

**Municipality** - A city or town or other area incorporated for self-government. Also, in its broadest sense, any state or local government, including states, counties, cities, towns, and special districts.

**Municipal bonds** - A bond issued by a municipality.

**Nominal interest rate** - The contractual interest rate shown on the face of a bond and used to compute the amount of interest to be paid; in contrast to the effective interest rate.

**Present value** - The amount that a buyer is willing to pay for one or a series of payments to be received in the future. Computed by discounting the future cash flows at an appropriate rate of interest and for an appropriate period of time.

**Refinance** - To replace existing debt with new debt, generally to take advantage of lower interest rates, or to shorten or lengthen the debt payout period.

**Reserved fund balance** - That portion of fund balance that either represents resources that are not of a type that can be appropriated (e.g., reserves for inventory) or that are legally segregated for a specific future use (reserves for encumbrances).

**Revenue debt** - Bonds and other obligations whose principal and interest are payable exclusively from earnings of a specific enterprise, such as an electric utility, toll road, or dormitory, and are thereby not backed by the full faith and credit of the issuer. Contrasted with general revenue debt.

**Serial bonds** - Bonds that mature in a series of installments at future dates-e.g., a portion of a bond issue matures in five years, a portion in six, a portion in seven, and so on.

**Short term debt** - Obligations that are expected to be paid within one year or the entity's operating cycle.

**Term bonds** - Bonds that mature in one lump sum at specified future date.

**Yield rate** - The actual (effective), as distinguished from the nominal rate (coupon or stated), rate of return on a bond or other investment.

**Zero coupon bond** - A bond with a stated annual interest rate of zero. It provides a return to investors in that it is issued at a price considerably less than the bond's face value and sufficiently low so that the difference between the face value and issue price will equal a return comparable to that on conventional bonds.

## REFERENCES

### Books

- Babbie, Earl (1995). The Practice of Social Research New York, NY: Wadsworth Publishing Company.
- Ballard, Frederic L. (1998). ABC's of Arbitrage. United States of America,: American Bar Association.
- Birnbaum, Jeffery H. & Murry, Alan S. (1987). Showdown at Gucci Gulch, Lawmakers, Lobbyists, and the Unlikely Triumph of Tax Reform. New York, NY: Random House.
- Bordens, Kenneth S. & Abbott, Bruce B.(1991). Research Design and Methods. Mountain View, California: Mayfield Publishing Company.
- Forbes, R. W. & Peterson, J.E. (1976). Building a Broader Market. New York, NY: McGraw Hill Book Company.
- Gelinas, Ulric J. & Oram, Allan E. (1995). Accounting Information Systems. Cincinnati, Oh: South-Western College Publishing.
- Granof, Michael H. (1998) Government and Not-For-Profit Accounting, New York, NY: John Wiley & Sons, Inc.
- Gray, G.,& Cusatis, P. (1995). Municipal Derivative Securities. New York, NY: Irwin Professional Publishing.
- Hendershott, P.H. & Koch, T. W. (1977). An Empirical Analysis of the Market for Tax-Exempt Securities: Estimates and Forecasts. New York, NY: New York University.
- Investment Bankers Association of America (1969). Fundamentals of Municipal Bonds. Washington, D.C.: Investment Bankers Association.
- Lamb, R. & Leigland, J. & Rappaport, S. (1993). The Handbook of Municipal Bonds and Public Finance. New York, NY: New York Institute of Finance.
- Leonard, Paul A., (1982). Commercial Bank Underwriting of Municipal Revenue Bonds. Ann Arbor, Michigan, UMI Research Press.

Moore, David S., (1995). The Basic Practice of Statistics. New York, New York: W.H. Freeman and Company.

White, Wilson. (1991). The Municipal Bond Investment Advisor. Chicago, Illinois: Probos Publishing Company.

White, Wilson. (1985). The Municipal Bond Market. Jersey City, N.J.: The Financial Press.

### **Nonperiodicals**

Arbitrage and Rebate Committee of the National Association of Bond Lawyers. (1993, January). Comments on Proposed Regulations on the Arbitrage Restrictions Applicable to Tax-Exempt Bonds.

American Bar Association, Section of Taxation. (1990, February). Comments Concerning Temporary Income Tax Regulations Relating to Arbitrage Restrictions on Tax-Exempt Bonds.

Burke, Terence P. (1992). Guide to Arbitrage Requirements for Governmental Bond Issues Chicago, Il.: Government Finance Officers Association

Chapman & Cutler Law Firm, (1993, June). July 1993 Final Regulations- - Reimbursement Rules. Memorandum.

Department of the Treasury (1993) 1993 Final Arbitrage Regulations: Arbitrage Restrictions on Tax-Exempt Bonds

Hawkins, Delafield & Wood Law Firm. (1994, May). Technical Amendments to Arbitrage Regulations. Hawkins Advisory.1.

Kutak Rock Law Firm, (1992, July). Summary of the 1992 Final Treasury Regulations Regarding Arbitrage Restrictions on Tax-Exempt Bonds.

Kutak Rock Law Firm. (1993, July). Summary of the Final Arbitrage Regulations.

Kutak Rock Law Firm, (1994, May). More Changes to Arbitrage Regulations. Memorandum.

- Metcalf, Gilbert E. (1989). Arbitrage and the Savings Behavior of State Governments: NBER Working Paper Series, Working Paper No. 3017. Cambridge, Ma.: National Bureau of Economic Research.
- Mudge Rose Guthrie Alexander & Ferdon Law Firm. (1989, June). Arbitrage Rebate Regulations. Memorandum.
- Mudge Rose Guthrie Alexander & Ferdon Law Firm. (1991, May). Proposed Reimbursement Regulations. Memorandum.
- Mudge Rose Guthrie Alexander & Ferdon Law Firm. (1991, May). Arbitrage Rebate Regulations.
- Weiner, Dean & Miller, Arthur M. (1989). Comments on Proposed and Temporary Regulations #1.148 - -Arbitrage Rebate Transferred Proceeds Provisions. American Bar Association Tax Section Committee on Tax-Exempt Financing Task Force on Rebate Regulations.
- Wilson, Randee (1997) Basics of Arbitrage Compliance 1997 Edition, Dallas, Tx.

### Periodicals

- Arbitrage prop.regs. Target excessive purchase prices for treasury securities. (1996, September). The Journal of Taxation, 187.
- Ballard, Fredric L. Jr. & Schakel, Linda B.(1993, Summer).Treasury Publishes New Arbitrage Regulations. Public Finance Notes,
- Barnard, Jeanna, (1994,May) Arbitrage Requirements Demand Comprehensive Plan. American City & County, 10.
- Bencivenga, Dominic, (1998, March). "Yield Burning" on Trial. New York Law Journal,
- Chapman and Cutler Law Firm, (1992, December). Yield Restriction and Rebate. Public Finance Tax Update. 1.
- Chapman and Cutler Law Firm, (1993, July). Yield Limitations and Rebate. Public Finance Tax Update. 1.
- Chiechi, Carolyn P. (1992, September). New guidance on arbitrage rebate is not the last word. The Journal of Taxation, 186.

Corder, David R., (1997, September). SEC probes Hough in underwriting conflict. Tampa Bay Business Journal.

Do Tax-Exempt Bonds Really Subsidize Municipal Capital? (1991, Dec.). National Tax Journal. 44(4): 71-79.

Enforcement program accompanies final arbitrage regs. (1993, August). The Journal of Taxation, 98.

Flippinger, Robert A. & Wertheim, Andrew J. (1998, June). As the Securities and Exchange Commission proceeds with its challenge to the practice known as yield burning, what obstacles lie in its enforcement path? The National Law Journal, B05

Interest income not exempt where debt was arbitrage bonds and issuer failed to pay differential to U.S.(1996, February). The Journal of Taxation, 102.

Majors, George, (1996, March). Teamwork helps solve rebate riddles. American Town & County. 10.

Nemes, Judith. (1992, Nov. 23) Proposed Changes in Arbitrage Rules Aim to Simplify Cumbersome Process. Modern Healthcare 22(47):54.

Orrick, Herrington & Sutcliffe Law Firm, (1989, June). Summary of Arbitrage Rebate Requirements, Municipal Finance Report, vol. 89-2.

Orrick, Herrington & Sutcliffe Law Firm, (1992, May). Treasury Department Finalizes Arbitrage Regulations for Rebate and Refunding. Municipal Finance Report, vol. 92-2

### **Newspapers**

Gasparino, Charles and Connor, John. IRS Inquiry of "Yield Burning" Puts Jacksonville in Tight Spot. Wall Street Journal 1997 April 4

Mason, Julie, & Sablatura, Bob. (1995, Dec. 1). IRS auditors targeting investment practices. Houston Chronicle.

Mason, Julie, (1996, January). Kelley makes first week as controller a contrast in styles, priorities. Houston Chronicle.

Mason, Julie, (1996, January). City will likely pay \$1.7 million rebate to IRS. Houston Chronicle.

Regan, Edward V. End the Municipal Bond Subsidy. Wall Street Journal 1996 March 21

### **Internet**

AMTEC, Rebate Computation Frequency and Philosophy.

[Http://www.amteccorp.com/rebate.htm](http://www.amteccorp.com/rebate.htm)

Arbitrage, <http://www.cpa.texas.gov/localinf/debtguide/ch2.8.htm>

Chapman & Cutler Law Firm, Arbitrage Rebate. <http://chapman.com/arbitrage.main.htm>

Doherty, William, (1998, June). New Orleans Sues Bond Advisers for 'Yield Burning'. <http://www.ljx.com/LJXfiles/nawlinvsSmithBarney.htm>

Ernest & Young LLP., Arbitrage Rebate Group. <http://www.ey.com/aabs/arbitrage.htm>

Finotti, John (1997, May). School bonds included in IRS probe.

<http://www.jacksonville.com/tu-online/stories.051597/1c8school.htm>

GFOA Fact Sheet, Arbitrage Rebate Safe Harbor. <http://www.gfoa.org/facts/arbitrage1.htm>

GFOA Fact Sheet, Arbitrage Rebate Safe Harbor. [http://www.gfoa.org/liaison/fs\\_arb.htm](http://www.gfoa.org/liaison/fs_arb.htm)

MEK Securities LLC, Yield Burning I: Are your tax-exempt bonds going to become taxable? <http://www.mek.com/pubaccess/yldburn.as>

Plishner, Emily, (1998, April) Wrong Villains in Yield-Burnings.

<http://www.cfonet.com/html/articles/TRM.1998/98APwron.htm>

Securities and Exchange Commission Announces First Settlement of Yield Burning Case. (1998, April). <http://www.sec.gov/news/press/98-42.tx>

Smith Barney Executive Settles Fraud Claim. (1998, Feb.)

[http://www.fponline.com/news\\_daily/bondfraud.shtm](http://www.fponline.com/news_daily/bondfraud.shtm)



Wall St. vs. Bond issuers. (1997, January).[http://cnnfn.com/hotstories/companies/9701/06/yieldburning\\_pkg/index-txt.ht](http://cnnfn.com/hotstories/companies/9701/06/yieldburning_pkg/index-txt.ht)

'Yield burners' burned? (1998, April).<http://cnnfn.com/hotstories/washun/9804/23/yiek>