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Council of Infrastructure Financing Authorities

An Analysis of State Bond Banks

Prepared by

Government Finance Group, Inc.

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CIFA Monograph No. 9
February 1997

ABOUT THE AUTHORS

The Government Finance Group (GFG) is an independent financial advisory and research consulting firm headquartered in Arlington, Virginia. The firm, headed by **John E. Petersen**, a well recognized expert in public finance, provides comprehensive professional services primarily to state and local governments and their agencies and authorities. Since its inception in 1991, it has acted as financial advisor on over $2 billion in municipal bond issuance, with financial advisory clients in Virginia, North Carolina, South Carolina, Maryland, Massachusetts, Pennsylvania, New York and Texas. The GFG staff draw on a broad base of experience in investment banking and financial analysis; economic and financial modeling; credit analysis; capital budgeting; fiscal impact analysis; and program administration. By inclination and design, GFG performs a variety of services for clients which encompass both traditional debt issuance services and consulting and research services. Associates of GFG involved in the research and preparation of this Monograph were **Michelle Cowan** and **Matthew Levin**.

FOREWORD

In this Monograph, the authors ask rhetorically, "What is a bond bank?" A question, I might add, often asked of us at CIFA. The answer, as they detail in this most informative analysis, is that state bond banks can encompass a variety of state financing structures which, as a common characteristic, sell their own securities in the public bond market and relend the proceeds to local governments. In so doing, they provide communities access to the economies and efficiencies of the public debt market -- especially smaller towns lacking the financial expertise and credit history to go to the bond market on their own. At the same time, by pooling a number of smaller issues and backing them with the states' credit, the bond banks further reduce the cost of borrowing for the locality. As the Monograph explains, state bond banks have been especially active in providing financing for community water and sewer needs, but also providing funding for schools, transportation, solid waste management facilities and economic development.

Not every state has a bond bank nor may need one, but in those states where they operate, they have proven their worth as an efficient conduit to low-cost borrowing for many communities. They have also proven to be highly adaptable for taking on new and evolving roles in meeting state infrastructure financing needs. Many of the bond banks have become the mechanism for running the State Revolving Loan Funds (SRFs) for wastewater treatment funding and, likewise, will play a role in administering the new SRFs for drinking water funding. With the increasing trend toward delivery of federal program initiatives through capital grants to the states not just for environmental facilities financing but also current proposals for transportation and educational facilities funding, the state bond banks can be strategically situated for new and expanded roles.

We are pleased to be able to publish this Monograph, and are grateful to **John Petersen** and the staff at **Government Finance Group, Inc.**, especially **Michelle Cowan** and **Matthew Levin**, for the excellent job they have done in pulling together, analyzing and interpreting the information that was gathered by CIFA's survey of the state bond banks. We wish to thank the many respondents for their help with the survey, their interpretation of data and their subsequent review and suggestions. We hope the Monograph will prove instructive to those interested in the innovations of public financing, and useful, perhaps, to other states and localities that might want to consider designing a comparable financing mechanism in their state.

James N. Smith
Executive Director

Council of Infrastructure Financing Authorities
Washington, D.C., February 1997

INTRODUCTION

What is a bond bank? There is no single definition that sufficiently describes all bond banks, but a broad definition might be an entity that *sells its own securities* and relends bond proceeds to local governmental entities. This definition incorporates a broad range of entities, including private, non-profit, and governmental entities, many of which only issue debt for a single purpose. A more limited and more traditional definition of a bond bank is a state-sponsored entity that makes local infrastructure projects feasible by providing access to the municipal bond market and by providing direct and indirect financial subsidies to localities primarily through debt issuance. In distinguishing between these two definitions, the concept of state sponsorship and assistance is important in distinguishing those borrowing entities that enjoy an element of state "legitimacy" and support, as opposed to those entities that are purely free-standing and unassisted. In addition, "traditional" bond banks' primary goal is to provide low-cost financing to local governments by using debt issuances to meet this goal. Finally, the traditional state bond bank typically provides this cost-effective financing by enhancing its debt issues with some form of state credit support.

Even though there is difficulty in drawing a bright line in terms of what is or is not a "traditional" bond bank, it appears that the concept of a "general purpose" state-based lender has grown slowly over the past twenty-five years. The **Vermont Municipal Bond Bank**, which was created in 1969, is generally credited as the nation's first general purpose bond bank, and was soon followed by the **Maine Municipal Bond Bank**, **Puerto Rico Municipal Finance Agency**, **Alaska Municipal Bond Bank Authority**, **North Dakota Municipal Bond Bank**, and the **New Hampshire Municipal Bond Bank**. Other more specialized, limited purpose state lending entities have also grown over the past twenty-five years and in some cases preceded general purpose bond banks. Special purpose bond banks have been created most often for education purposes, although evolution in this area has been a matter of political choice and local need. One of the oldest education-purpose bond banks is **the Virginia Public School Authority**, which was created in 1962 and provides low-cost financing to Virginia school systems. More recently, the 1987 federal Clean Water Act created a host of special purpose state borrowing entities for local wastewater projects through the EPA-sponsored State

Revolving Fund (SRF) program, many of which are housed in previously existing state bond banks.

For purposes of this report, the more traditional definition of a state-sponsored bond bank is used. Using this definition, this report will provide an overview of state bond bank programs, including the range of programs and assistance offered, types of credit enhancement utilized, administrative structure and practices, debt issuance practices, and local borrower characteristics.

The primary data source for this report comes from responses to a survey distributed by the **Council of Infrastructure Financing Authorities (CIFA)** in fall, 1995. The survey, which is included in Appendix A, was distributed to twenty-five state bond banks of which seventeen entities responded. The bond banks included in the mailing were primarily general purpose bond banks, some of which also operate the SRFs, however no strictly SRF programs are included in this report. The common denominator shared among responding bond banks is their status as state-sponsored entities that issue debt in order to assist local governments in financing general infrastructure needs. Survey response data were supplemented by analysis of bond bank annual reports, official statements, phone interviews with certain bond bank officials, and selected rating agency reports. In addition, other research reports on bond banks were referenced (See general references in Appendix B).

SECTION ONE: PROGRAMS AND PROGRAM STRUCTURE

Although all bond banks share a common denominator in debt issuance, there is no “typical” range of assistance programs that all bond banks offer -- each has developed differently based on statutory mandate, political backing, state financial support, and local need. Thus, it is no surprise that the composition of programs and program structures of each bond bank are markedly different from one another. This section explores the various programs offered by bond banks, in particular addressing the following:

- Types of financing programs offered by bond banks
- Types of state credit enhancement on bond bank debt issues
- Advantages and disadvantages to local governments in utilizing bond bank financing
- Future plans for program expansion by bond banks

TYPES OF FINANCING PROGRAMS

There are a number of different types of financing programs that bond banks offer local governments. Most programs can be categorized into three primary types: 1) long-term bond pools, including refundings, 2) cash flow financing, and 3) equipment lease financing (see Table 1-1 which contains a summary of programs each bond bank offers).

Long-Term Bond Pool -- Of the bond banks surveyed, all but the **Virginia Resources Authority** operate a long-term bond pool, and in nearly two-thirds of the bond banks surveyed, a long-term bond pool was the only program offered. The mechanics of a long-term bond pool are fairly standard. Typically, a bond bank will issue bonds under a master legal indenture and use bond proceeds to purchase debt obligations of localities. Bondholders generally are secured by loan repayments from the pool of local borrowers as opposed to one locality, and in some cases have additional credit enhancement from the state. Because of the diversification offered in the pool, investors generally require lower interest rates than they would if they were purchasing a single obligation from one locality. In addition, the pooling concept provides certain economies of scale by spreading fixed costs of issuance (e.g., rating fees, official statement printing, etc.) across several borrowers. Economies can also be enjoyed by negotiating lower fees for bond insurance and gaining coverage for smaller loans that would not be insured on a stand-alone basis.

Cash Flow Financing -- Localities in many states face operating cash flow shortfalls because of differences in timing between the receipt of revenues and timing of operating expenditures. Certain bond banks issue short-term pooled issues to provide localities with interim funding until its operating revenues are received. These programs are very similar to long-term bond pools in terms of their pooled structure and ability to provide economies of scale and interest rate savings, but vary in maturity length (generally one year or less) and purpose of issuance. Typically, these short-term issues are secured by the locality’s pledge of those operating revenues, and in some cases, by the ability of the state or the bond bank to intercept state aid in the event of nonpayment on the obligation by the locality. The **Indiana Bond Bank** and the **Michigan**

Municipal Bond Authority both offer very popular cash flow financing programs with average issuance in excess of $200-300 million per year.

Equipment Lease Financing -- Vendor financing or conventional debt financing for relatively small equipment purchases is often prohibitively expensive for small entities, while up-front purchases deplete needed cash reserves. Although the programs vary from state to state, bond banks generally act as a placement agent or pass-through entity by placing the loans with one or several banks. The bond bank typically provides standardized loan and security documentation that streamline the process and allow banks to bid aggressively on the loans because of their increased comfort with the credit of the local borrower. The loans can be pooled or placed on a stand-alone basis. Bond banks that offer these types of programs include the **New Mexico Finance Authority** and the **Indiana Bond Bank**. The **Michigan Municipal Bond Authority** also offers a monthly competitive sale of pooled loans for equipment purchases, enabling local governments to finance small equipment purchases in a timely and cost-effective manner.

Table 1-1: Types of Financing Programs

State	Long-Term Bond Pool(1)	Cash Flow Financing	Equipment Leasing Financing	SRF (2)	Other
Alaska	✓				
Colorado (3)	✓			✓	✓
Indiana (4)	✓	✓	✓	✓	✓
Kentucky (5)	✓			✓	
Maine (6)	✓			✓	✓
Maryland	✓				
Michigan	✓	✓	✓	✓	
Mississippi	✓				
Nevada	✓				
New Hampshire	✓				
New Mexico (7)	✓		✓		✓
North Dakota	✓	✓	✓	✓	
Oregon	✓				
Texas	✓			✓	
Vermont	✓				
Virginia (8)				✓	✓
West Virginia	✓			✓	

(1) Includes refundings.
(2) EPA Clean Water State Revolving Fund (SRF) program. These bond banks generally provide financial administration assistance to their state's SRF program, while the state's environmental agency provides policy and project administration. Seven bond banks (Colorado, Indiana, Kentucky, Maine, Michigan, North Dakota, and Texas) leverage (e.g. issue debt to increase the amount of lendable funds) on behalf of their state's SRF.
(3) Colorado operates two long-term bond pools, the Water Pollution Control Revolving Fund (SRF) and the Small Water Resources Program, and one long-term direct loan (e.g., not bond-funded) program, the Drinking Water Revolving Fund. The Drinking Water Revolving Fund was created in anticipation of reauthorization of the federal Safe Drinking Water Act and was initially funded with state appropriations.
(4) Indiana also operates two other programs: 1) an Energy Conservation Program which provides localities with annual appropriation-backed financing for energy conservation improvements and is basically a drawdown facility and 2) a Not-for-Profit Utility program that provide long-term financing for certain utilities.
(5) Kentucky operates four long-term bond pool programs, which vary primarily by type of infrastructure financed.
(6) Maine provides stand-alone financing for individual issuers of $10 million or greater, and also provides bridge or short-term loans for SRF borrowers.
(7) New Mexico provides financing for state building projects, including prisons, health care, and administration buildings. New Mexico also operates a revolving fund to provide financial assistance and loans to rural primary health care clinics.
(8) In addition to the SRF, Virginia provides stand-alone (as opposed to pooled) financing for individual issuers.

OTHER TYPES OF ASSISTANCE

Payment of Costs of Issuance and Funding Debt Service Reserve -- Several bond banks pay all or a portion of the costs of issuance and fund the debt service reserve requirement for bond bank issues on behalf of local issuers. Alaska, Colorado, Maine, North Dakota, and Oregon have paid a portion of or all of the costs of issuance for local borrowers, with a majority of this subsidy covered through interest earnings generated by other bond bank cash balances. Colorado and Oregon also fund the debt service reserve fund requirement on their bond issues with bond bank funds rather than issuing additional bonds to fund this requirement. Colorado and Maryland also partially cover bond insurance premiums on behalf of local borrowers.

Revolving Loan Programs -- Some bond banks offer revolving loan funds that are distinct from the federally-capitalized wastewater SRF program. These funds make subsidized loans to local borrowers and loan repayments are then relent to other issuers over time. Thus, moneys in the loan fund constantly "revolve," or are recycled to new projects. Bond bank revolving funds have typically been initially capitalized by a state appropriation, or receive an ongoing revenue stream from the state to support the subsidized program. The **Oregon Bond Bank** and the **New Mexico Finance Authority** revolving loan fund programs are examples of funds that receive ongoing funds from their respective states. Both of these programs have also increased the amount of revolving fund loans available by leveraging a portion of their loan repayments. Somewhat similarly, the **Kentucky Infrastructure Authority** runs two revolving loan funds that offer substantial interest rate discounts from market rates (2 to 4 percent). Kentucky is able to offer these subsidies because the state legislature pays all debt service through its annual appropriation pledge, and, by law, all loan repayments by localities are to be relent to other infrastructure projects. The **Colorado Water Resources & Power Development Authority** and the **Virginia Resources Authority** have revolving loan funds for small drinking water projects which were initially capitalized by state funds. Both of these programs have limited loan capacity available due to the one-time nature of and relatively small amount of the initial funding.

TYPES OF STATE CREDIT ENHANCEMENT

Most states provide additional interest rate savings to local borrowers by pledging some form of state credit enhancement to bond bank issues. State credit ratings are generally higher than those of most local governments, often resulting in lower interest rates on bond bank issues when one or more enhancements are employed. (See Section Three for more discussion of how state credit enhancement affects bond bank ratings.) The type and level of state credit support can vary and is dictated by statutory, financial, and political limitations. The following discussion summarizes the various forms of state credit enhancement:

State Moral Obligation on Debt Service Reserve Fund -- Many bond bank debt issues include a debt service reserve (DSR) fund that is equal to maximum annual debt service that can be drawn upon in case of default on debt service payments. In case of a default and draw on the

reserve fund, the bond bank covenants that it (or the appropriate state executive branch official) will request the state legislature to appropriate funds to restore the reserve fund to its required level. Investors then look to the state as the ultimate credit support for the issue, although investors still face the risk that the legislature will not appropriate funds to replenish the debt service reserve. Generally, a moral obligation pledge to replenish the debt service reserve fund results in a rating from **Standard & Poor's** and/or **Fitch Investors Service** that is one category lower than the state's general obligation rating. **Moody's Investors Service** does not recognize moral obligation pledges, and instead rates bond bank issues primarily on the legal structure of the issue and the bond bank, as well as the credit quality of the underlying borrowers.

State Appropriation Support -- In this structure, bond bank issues are backed by state legislative appropriation of debt service every year (or every two years depending on the state's budget cycle). The annual appropriation pledge of the state mitigates the risk of local borrower' defaults, but investors still bear the risk of non-appropriation by the state.

State General Obligation Support -- A few states have pledged their full faith and credit to either the underlying issues of the local governments that are purchased by the bond bank or to the pooled issue sold by the bond bank itself. The majority of states do not pledge their own full faith and credit as they have statutory limitations on the amount of general obligation debt they can issue or they need that debt capacity for state-wide projects.

State Aid Intercept Provision -- Many bond banks have the statutory authority to intercept state aid to local governments if the latter should default on their obligations to the bond bank. This intercept mechanism is viewed most favorably when the local governments depend on state aid for a large portion of their revenues and when the state aid can be redirected immediately from the bond bank to investors.

Depending on the circumstances, a bond bank may employ a combination of state credit enhancements, which may differ from one program to the next. Table 1-2 shows the state credit enhancements used by each bond bank program.

Table 1-2: State Credit Enhancements

State	Moral Obligation on DSR	General Obligation	Annual Appropriation	State Aid Intercept	Other
Alaska (1)	A			a	
Colorado (2)	A				
Indiana (3)	a,c,d				
Kentucky (4)	A		a		
Maine (5)	a,e			a,e	
Maryland				a	
Michigan				a,b,c,d	
Mississippi	A			a	
Nevada		A		a	
New Hampshire (6)	A	A			
New Mexico (7)				a,c	a
North Dakota	a,b,c,d				
Oregon				a	
Texas		A			
Vermont	A			a	
Virginia (8)	E			e	
West Virginia	A				

(1) Only local general obligation bonds receive a moral obligation pledge of the state of Alaska; local bonds backed by net enterprise revenues have both a bond bank reserve fund and local reserve fund although neither reserve is backed by the state's moral obligation pledge.
(2) The Colorado Water Resources & Power Development Authority has the ability to issue bonds backed by a moral obligation pledge, but has relied on financial structure of its SRF to achieve high quality credit ratings. It does purchase bond insurance for its Small Water Resources Program, a portion of which is subsidized by the Authority.
(3) The Indiana Bond Bank's Energy Conservation Program and No-for-Profit Utility Program do not benefit from any traditional state credit enhancement.
(4) The Kentucky Infrastructure Authority's Wastewater Revolving Fund (SRF), Infrastructure Revolving Fund, and the Solid Waste Revolving Loan and Grant program benefit from the state's pledge and practice of annual appropriating state funds for debt service. The Authority's Governmental Agencies Program is enhanced by the legislature's moral obligation pledge to replenish the DSR in event of default.
(5) In addition to the moral obligation and state aid intercept offered for its long-term bond pool, the Maine Municipal Bond Bank also offers both enhancements to stand-alone financings for individual issues.
(6) The New Hampshire Municipal Bond Bank has two separate long-term bond pool programs: 1) the State-Guaranteed Program which is backed by the full faith and credit of the state, and 2) the Non-Guaranteed Program which is backed by a moral obligation pledge on the DSR.
(7) The New Mexico Finance Authority's long-term bond pool, the Public Project Revolving Fund, receives a dedicated tax stream from the state each year which it uses to enhance its bond issues.
(8) Virginia Resources Authority's long-term individual issues receive a moral obligation pledge on the DSR, while the state aid intercept is only offered on local obligations that are backed by a GO pledge.

Key:
a = Long-term bond pool
b = Cash flow financing
c = Equipment Financing
d = SRF
e = other

ABILITY TO INTERCEPT STATE AID

As noted above, the ability to pledge and intercept future state aid payments in the event of a debt service deficiency is an important component of many bond bank operations. The size and pace of future state aid payments, while constitutionally mandated in some cases, will likely depend on the future economic, financial, and political position of the state. Thus, such payments are not viewed as having the same dependability as a direct pledge of the state's support. Moreover, in some cases, the ability to rapidly intercept payments in order to avoid a default may never have been tested. Nonetheless, as an additional source of pledgeable funds to

secure debt, the intercept can be a substantial source of added security, especially in states where state aid is a large part of local government revenues.

As illustrated in Table 1-3, eleven of the seventeen bond banks surveyed either now employ or can employ some form of state aid intercept mechanism. The most common form, seen in eight cases, is where all state aid received by a locality can be intercepted or pledged to repay its bond bank obligations. However, in other states, such as Oregon and Indiana, only state aid related to the purpose of the borrowing can be intercepted or pledged. In Virginia, the intercept can only be used in conjunction with a general obligation pledge by the borrower. This is common for local school aid being pledged for school construction loans, but is also found in other areas such as the pledging of state highway fund distributions to back up transportation-related borrowings.

In many cases, a limitation is placed on the amount of local debt that can be secured by interceptable state aid. This limitation typically takes the form of a coverage requirement. For instance, a bond bank may require that state aid received by a local borrower in the most recent fiscal year be at least equal to annual debt service (e.g.,. 1.0 times coverage). This requirement assures bondholders that debt service, if not met by other pledged revenues, can be paid for by intercepted state aid. Coverage requirements on state aid intercepts are often key in maintaining high quality credit ratings. Bondholders can also be given the benefit of a senior lien on state aid and may also require an additional bonds test that prohibits the locality from any dilution of projected coverage ratios by assuming additional intercept-secured debt.

Table 1-3: State Intercept Provisions

STATE	NATURE OF INTERCEPT
Alaska	May intercept any state aid payable to a defaulting local government
Colorado	No intercept provision
Indiana	State aid can only be intercepted for repayment of school building bonds
Kentucky	No intercept provision
Maine	All state aid is eligible to be intercepted
Maryland	All state aid is eligible to be intercepted
Michigan	All constitutionally mandated state aid is eligible to be intercepted. On Transportation Fund obligations, debt service cannot exceed 20% of transportation aid for counties, 45% requirement for cities On Revenue Sharing obligations (long-term pool, equipment lease) and SRF, as a matter of program rather than statutory requirements, state sales tax distribution to localities and total state revenue-sharing to localities must be minimum multiples of maximum annual debt service
Mississippi	Sales tax transfer, homestead exemption transfer and any other tax payments due to localities from the state is eligible for interception
Nevada	Only certain state aid is eligible to be intercepted
New Hampshire	No intercept provision
New Mexico	Pledge of governments gross receipts tax (collected by the state) and other shared revenues are eligible to be intercepted. Coverage requirements depend on credit rating of the local borrower
North Dakota	No intercept provision
Oregon	State aid can be intercepted but only that aid for specific purpose being financed
Texas	No intercept provision
Vermont	All state aid is eligible to be intercepted
Virginia	All state aid is eligible to be intercepted but only if there is general obligation pledge by borrower. All other pledges are not eligible for state aid intercept.
West Virginia	No intercept provision

PLANS FOR NEW PROGRAM EXPANSION

Several bond banks stated that they are considering creating new programs, primarily for projects that require shorter-term financing. The **Indiana Bond Bank** and the **Maine Municipal Bond Bank** are both considering new programs to finance energy conservation-related equipment (which typically is most suited for shorter term financing), and the **Kentucky Infrastructure Authority** is also considering a program with maturities of seven years or less. Maine is contemplating creating a lease financing program. Interestingly, several bond banks stated that

new program ideas are generally conceived by local borrowers who often are responding to changes in state law. For instance, Michigan implemented a new cash flow financing program for charter schools in 1996, which have only recently come into existence in that state.

A potentially major new program that many bond banks could become involved in is the EPA-sponsored Drinking Water State Revolving Loan Fund program which is similar to EPA's wastewater SRF program that has been in effect since the late 1980's. The Drinking Water SRF was created by recent amendments to the federal Safe Drinking Water Act (signed into law in 1996), and allows states to use federal grants to create revolving loan funds which will eventually become self-supporting. The federal grants will be used as seed money to issue direct loans or back bond issues for drinking water projects. One bond bank, the **Colorado Water Resources and Power Development Authority**, anticipated the reauthorization of the Safe Drinking Water Act with a SRF mechanism, creating a small state-funded drinking water revolving loan fund that will be expanded to include the federal portion of the drinking water SRF program.

Another potential program for bond banks is the **State Infrastructure Bank (SIBs)** pilot program started by the federal Department of Transportation in September, 1996 for transportation projects. Capitalized with federal seed money, SIBs are infrastructure investment revolving loan funds that offer a variety of loan and credit enhancement assistance, and allow states to achieve maximum flexibility with project selection and financial management. Currently, ten states have been selected to operate SIBs under the pilot program. As of the time of the survey, the **New Mexico Finance Authority**, the **Virginia Resources Authority**, the **Oregon Bond Bank** and the **Colorado Water Resources and Power Development Authority** reported that they had discussed cooperating with their respective state departments of transportation in the SIBs program. Of those only the Commonwealth of Virginia is now participating in the SIBs pilot program, but the program is expected to be expanded.

At the federal level, funding for various revolving loan programs has been provided by the Economic Development Administration (EDA), the Department of Housing and Urban Development (HUD), the U.S. Department of Agriculture (USDA) and the Appalachian Regional Commission (ARC) for various types of community assistance and economic development programs, usually with the intent of leveraging private capital into higher risk areas. The scope of revolving funds initiated by federal programs may be expanding. In the most recent Congress, the Agriculture Committees floated the idea of incorporating a revolving fund for rural development credit programs as part of a general move toward greater use of block grants and providing more flexibility to the states. Although the rural development revolving fund did not survive the final passage of the 1996 farm bill, the idea of further blocking credit assistance programs into a flexible revolving fund approach still has its advocates, and represents another potential program area for bond banks. Likewise, President Clinton's recent proposal for financially assisting communities and school districts in making capital improvements in their schools through the subsidy of local debt repayments could, if enacted, be a natural for state bond bank management.

BENEFITS AND DISADVANTAGES OF BOND BANK ISSUANCE

As part of the survey, the bond bank respondents were asked what were the most frequently mentioned reasons localities cited for using the bond bank as a means of borrowing. They were given a choice of eight standard responses (as shown in Table 1-4) and then asked to indicate their relative importance on a scale of 1 to 10, with 10 being the most frequently mentioned reason and 1 the least frequently mentioned reason. Non-ranked responses were treated as being equal to zero.

The results are indicated in Table 1-4, which in the first column, gives the average ranking of the reasons cited by localities for using bond bank financing. The table's next two columns give the number of times (out of a possible seventeen) that the reason was, respectively, among the top three reasons cited by localities and among the bottom three reasons given (or not mentioned) for using the bond bank. The results vividly illustrate that bond banks are most often used because they provide a lower cost of capital (reflected in both interest rates and costs of issuance) and provide better access to the municipal bond market. Bond banks are also of great utility to local borrowers for projects that are too small to be sold publicly on a stand-alone basis in a cost-effective manner, primarily because the fixed costs of issuance are too great. All other reasons given for using the bond bank were of much less importance.

Table 1-4: Benefits

Reason	*Average Ranking*	*Mentioned in top three reasons*	*Not mentioned or in bottom three reasons*
Lower interest cost	1.2	16	0
Lower issuance cost	2.9	15	0
Improved market access	3.4	9	0
Borrower too small for direct sale	4.9	5	3
Administrative burden less	7.4	8	1
No credit rating required	7.5	1	6
Lessens disclosure burdens	8.4	0	1
Avoidance of voter approval	9.1	1	16

In addition to the advantages mentioned above, a few bond bank respondents mentioned their ability to provide technical and administrative expertise in the complex area of debt issuance. One bond bank also cited its service as a technical resource to local governments, particularly in providing public finance seminars to local officials.

Bond banks were not specifically asked to identify the disadvantages to local governments in using their services. But, common disadvantages that have been cited by bond banks in previously published reports and which were mentioned in conversations with some bond banks representatives include a lack of flexibility for local borrowers, a disincentive for larger or high quality credits, and certain legal disincentives for smaller projects and issuers. Because of the complexity involved in organizing a pooled issue, financing schedules (including deadlines for applications and debt issuance) are often fixed or relatively inflexible. A rigid schedule may not mesh with the needs of local borrowers. In addition, borrowing terms can be inflexible in order to

maintain the credit quality of the pool or to meet statutory restrictions on the bond bank. Finally local borrowers typically have little or no input into the selection of the financing team and other outside consultants. Over the years, local banks and securities dealers have seen the bond banks as competitors for business and often have fought their establishment or expansion of programs.

Highly rated local issuers can usually attain an equal or even lower total interest cost than the bond bank by issuing on their own. These issuers also may not issue through a bond bank because they feel that their high credit quality is subsidizing weaker issuers. Because of these disincentives, bond banks are generally of greatest usefulness to smaller and weaker credits. If the bond bank is structured on a portfolio basis, larger communities that have weak credit ratings may overwhelm the capacity of the bank, which cannot diversify its issues enough to mitigate a large single borrower risk.

In some cases, even small issuers may be able to attain a lower cost of capital on their own than through bond bank financing due to certain federal tax law considerations. Under current tax law, local governments that issue less than $10 million annually can take advantage of a provision entitled "bank qualification," which allows banks to deduct most of their interest costs for investing in bank-qualified bonds. This status usually allows small issuers to receive lower interest rates than would otherwise be the case. When bank-qualified entities borrow through a bond bank, they lose this tax-advantaged status, thus reducing the cost-effectiveness of bond bank financing.

In addition, tax-exempt borrowers that issue less than $5 million annually are exempt from complying with the arbitrage rebate requirements, which can result in lower compliance costs over the life of the bond issue. Whether or not small issuers who participate in bond bank financing can take advantage of this provision depends on how the particular bond bank issue is structured. For example, the **Michigan Municipal Bond Authority's** bond counsel for its cash flow borrowing program has determined that borrowers of less than $5 million annually may take advantage of the exception. However, local borrowers that utilize bond bank financing often are not able to take advantage of this exemption. It is important to keep in mind that small issuers often are not rated or have lower credit ratings and, thus, frequently the bond bank's higher credit rating and economies of scale will offset the small-issue tax treatment advantages described above. That may be particularly the case with small negotiated issues. For example, a sample of negotiated bond sales taken in Michigan in 1996 found that bank qualification advantages were generally nonexistent for the smallest issues and made a very small difference in the small- to medium-sized issues.

SECTION TWO: ADMINISTRATION OF STATE BOND BANKS

While each bond bank is administered and financed differently, the majority operate as independent and self-supporting authorities created by state law. This section addresses the variations in how bond banks are administered and financed and also addresses the impact of arbitrage compliance on bond bank administration and local borrowers.

FINANCING OPERATIONS

Most bond banks are financially self-supporting, or in other words, are not reliant on the state to provide operating appropriations. Self-supporting bond banks rely on a variety of sources to pay for operations, but the most common means of support is fees charged to local borrowers. Of the bond banks surveyed, twelve relied fully or in part on local borrower fees. Some bond banks levy lump-sum fees at closing while others charge an annual fee based on outstanding loan amount or mark-up interest rates. It appears that no one fee method is more commonly used than any other.

Indiana, Maine, New Hampshire, and Vermont partially or fully fund operations from unappropriated cash balances and interest earnings on these balances that the bond bank has accrued over its existence. These four bond banks were all in existence prior to 1986, and during that pre-1986 period were able to retain all interest earnings they made on bond funds, creating significant cash reserves that were used to fund operations and give subsidies to local governments. After 1986, the Tax Reform Act forced all tax-exempt bond issuers (including bond banks) to pay to the Internal Revenue Service all interest earnings made that were greater than the interest rates on their bond issues, which resulted in revenue losses to these bond banks. These bond banks still retain pre-1986 funds which, together with interest earnings on these funds, are sufficient to fund bond bank operations. However, the arbitrage rebate requirements adopted in conjunction with the Tax Reform Act of 1986 have eliminated the ability of these bond banks to use excess interest earnings to provide additional subsidies to local borrowers. (See subsection entitled “Arbitrage Restrictions”)

Two bond banks, the **Maryland Local Government Infrastructure Financing Program** and the **New Mexico Finance Authority**, are not self-supporting and currently rely on state appropriations to subsidize their operations. The Maryland program is a part of the state’s Department of Housing and Community Development, and its operating expenses are undifferentiated from this department as a whole. The New Mexico Finance Authority (NMFA) is currently 25 percent self-supporting from fees charged to local borrowers. As NMFA debt issuance increases, it expects to be completely self-supporting from local fees, which it estimates to occur within four years.

Other bond banks were dependent on the state in the earlier years of existence or depend on ongoing support to provide local subsidies. The **Alaska Municipal Bond Bank Authority**

received state appropriations in the early years of its existence to fund operations, but has since primarily funded its operations with interest earnings on unexpended state appropriations and other available bond bank funds. Both the **New Mexico Finance Authority** and the **Oregon Bond Bank** also benefit from additional state financial support that is directly or indirectly passed along as a financial subsidy to local borrowers. Both programs receive earmarked revenue streams from their respective states that served as seed money for their revolving loan financing programs and, in NMFA's case, provides additional security and coverage to program bonds. The Oregon Bond Bank also funds its operations from interest earnings on available cash balances.

ORGANIZATIONAL STRUCTURE

Most bond banks were created by an act of the state legislature and generally have no taxing power. Of the bond banks responding to the survey, sixty-five percent are organized and exist as independent authorities. There are a number of state bond banks, however, that are not operated as independent authorities, but rather are located within and subordinate to other parts of their state government. Table 2-1 presents the location of surveyed bond banks within their state's organizational structure.

Table 2-1: Organizational Structure

STATE	INDEPENDENT AUTHORITY	OTHER
Alaska	✘	
Colorado	✘	
Indiana	✘	
Kentucky		✘ (Finance and Administration Cabinet)
Maine	✘	
Maryland		✘ (Dept. of Housing & Community Development)
Michigan		✘ (State Treasurer's Office)
Mississippi		✘ (Mississippi Business Finance Corp.)
Nevada		✘ (State Treasurer's Office)
New Hampshire	✘	
New Mexico	✘	
North Dakota		✘ (North Dakota Industrial Commission)
Oregon		✘ (Oregon Economic Development Dept.)
Texas	✘	
Vermont	✘	

Virginia	✘	
West Virginia	✘	

Staffing levels vary greatly among the bond banks depending on volume of loans they handle and the nature and number of programs for which they are responsible. **The Michigan Bond Bank** employees ten people while the **Vermont Bond Bank** has one full-time director and a part-time consultant.

ARBITRAGE RESTRICTIONS

Prior to 1986, bond banks were allowed to retain positive arbitrage (investment earnings in excess of the yield on related bond issues) on bond funds. These excess investment earnings were used to fund bond bank operations, build up reserves, and subsidize loans to local borrowers. With the passage of the Tax Reform Act of 1986 and related arbitrage regulations, all tax-exempt bond issuers, including bond banks, must now rebate all investment earnings above the related bond yield to the federal government. In addition to this direct financial restriction, tax-exempt issuers are also required to comply with a set of complex and technical regulations.

Bond banks were asked to comment on the restrictions that the arbitrage regulations place on their programs and administration. Responses varied greatly, but the primary consensus was that compliance with the arbitrage regulations, in particular rebate calculations, place an onerous administrative and financial burden on bond banks. For certain bond banks (primarily those created prior to 1986), the inability to earn positive arbitrage has forced them to levy fees on local borrowers to cover operations and to forego additional subsidies that were previously funded from arbitrage earnings. According to some bond banks, the cost of arbitrage compliance has actually reduced savings to local borrowers. Despite the limitations and added costs many bond banks have identified as a result of the arbitrage restrictions, others have concluded that the effects of the arbitrage restrictions are not overly burdensome and are not a significant factor in their operations.

While several of the surveyed bond banks reported that the arbitrage restrictions have had a limiting effect, there was no overall consensus as to which particular restriction is most limiting. Three bond banks, the **Indiana Bond Bank**, the **Colorado Water Resources and Power Development Authority**, and the **Maryland Local Government Infrastructure Financing Program**, stated that the spenddown exceptions should be liberalized in order to allow pooled financings to take advantage of these exceptions. (The spenddown exceptions allow bond issues in which bond proceeds are spent within certain specified timeframes to be exempt from the arbitrage rebate requirements on their construction funds.) Other bond banks cited the inability to take advantage of the small issuer exemption, which allows issuers that issue less than $5 million per year to be exempt from rebate compliance. (See subsection entitled "Benefits and Disadvantages of Bond Bank Issuance" in Section One for more discussion of arbitrage restrictions that limit the subsidies that can be offered to local borrowers.)

SECTION THREE: DEBT ISSUANCE PRACTICES

This section addresses debt issuance practices and characteristics of bond banks, in particular the frequency of debt issuance, method of sale, ratings and bond insurance, and costs of issuance. As with other bond bank functions, debt issuance practices vary significantly among bond banks.

FREQUENCY & SIZE OF BOND ISSUES

Frequency of debt issuance varies significantly among bond banks, in large part depending on the demand from local borrowers and the number and variety of programs each bond bank offers. Median average issuance of bond banks was approximately 2.5 issues per year, although Indiana, New Mexico, and the Virginia Resources Authority all cited average issuance ranging from 5-7 per year. This, in part, can be explained because Indiana and New Mexico operate at least three different programs, while VRA offers stand-alone (rather than pooled) financing to local borrowers. West Virginia, Maryland, Vermont, and Mississippi typically average one issue per year.

Similar to frequency of bond bank debt issuance, the average size of these issues also varies. Median average par amount of individual issues was approximately $15 million; median total average issuance per year was approximately $41 million. These figures exclude cash flow financing note issues (currently offered in Michigan, North Dakota and Indiana), which tend to be issued in par amounts of over $100 million. Size and frequency of debt issuance can also be affected by the inclusion of the EPA wastewater SRF program as a bond bank responsibility. If the SRF is leveraged (e.g., bonds are issued to increase lending capacity), the bond bank may issue an additional 1-2 issues per year solely on behalf of the SRF. Currently, seven bond banks issue bonds as part of their state's EPA SRF program.

In determining the par amount of individual pooled bond issues, bond banks cited two primary criteria: 1) demand from local borrowers; and 2) cost-effectiveness to local borrowers after taking into account all costs of issuance and the bond bank administrative effort required to put together an issue. One of the advantages of issuing debt through a pooled structure is the ability to take advantage of economies of scale by spreading fixed costs of issuance across several borrowers, thereby producing savings. At very small sizes, pooled issues can be less cost-effective because fixed costs of issuance and bond bank administrative costs can only be spread among a limited pool of borrowers, thereby reducing savings. Approximately half of the bond banks responding to this question cited $5 million as the minimum par amount needed to result in a competitive cost of capital to local borrowers. While this par amount seems to be a common benchmark, many bond banks noted that they would sell smaller issues in situations where a particular local borrower had extenuating timing or financial needs. For instance, Alaska indicated that its minimum issue size is $1 million, in part to respond to its short construction season. Almost half of the bond banks responding to this question cited $10 million or greater as the optimal size for pooled bond issues.

RATINGS

The majority of bond bank programs have uninsured ratings in the three highest rating categories of at least one of the three major rating agencies. Appendix C of this report provides a complete listing of credit ratings for the responding bond bank as of May 1996, as well as for the general obligation bonds of the state itself, if one is published. As noted previously, higher ratings generally lead to lower interest rates, providing cost savings to local borrowers. As described in Section One, most bond banks have some type of state credit enhancement that allows the bond banks to receive these higher quality ratings. The following subsections describe how the rating agencies approach state credit-enhanced bond bank issues.

Moral Obligation Pledge -- The most common form of credit enhancement is a moral obligation of the state to replenish a debt service reserve fund (typically funded at maximum annual debt service) in the event of a deficiency. Ten states currently offer this type of state credit enhancement in conjunction with their bond bank programs. Bond bank programs secured by a moral obligation pledge are generally rated one category lower than the state's general obligation rating by **Standard & Poor's** and **Fitch**. As of May 1996, all ten bond banks had received a rating from Standard & Poor's on one of their moral obligation-enhanced debt programs. To date, **Moody's** has not given credit to moral obligation pledges in its ratings. Moody's typically rates bond bank programs based on the underlying credit quality and diversity of pool borrowers and the legal and fund structure of the bond bank's debt issue (e.g., the existence of debt service reserves, excess pledged funds that result in better debt service coverage). However, this approach to credit quality has not necessarily resulted in lower ratings than Standard & Poor's in all cases. As of May 1996, Maine and Vermont had higher Moody's ratings than Standard & Poor's ratings. In addition, Alaska, Kentucky (Fund C -- Governmental Agencies Program), and New Hampshire had comparable Moody's and Standard & Poor's ratings.

State Aid Intercepts -- State aid intercept mechanisms are also available to many bond banks as credit enhancement. While the ability to intercept state aid is common among bond banks, only a few programs utilize intercept provisions as primary credit enhancement for their bond issues. In particular, the **Michigan Municipal Bond Authority** uses state aid intercept mechanisms on certain long-term bond pool issues (as opposed to a moral obligation or other pledge). However, the history and level of the state's revenue-sharing with local governments coupled with rigorous coverage requirements and the state's strong financial position play just as significant a role as the intercept provisions in the ability of Michigan programs to receive high ratings. Several other bond banks have the authority to intercept aid, but this mechanism is usually in addition to a state moral obligation pledge or other state credit enhancement, and the intercept is viewed as secondary credit enhancement. The ability to achieve higher ratings on many bond bank programs based solely on a state aid intercept mechanism can be limited for a variety of reasons. In some states (e.g., Oregon, Mississippi, Nevada) only certain types of state aid can be intercepted. In other states (e.g., Maryland) the amount of aid distributed to localities by the particular state is insignificant when compared to debt service.

While most bond banks have not actively pursued using state aid intercept mechanisms as primary credit enhancement, use of intercept mechanisms has been widespread outside of bond banks in helping localities access the municipal bond market, in particular for school districts. As of January 1996, approximately eighteen states had state aid intercept/withholding provisions that allowed school districts or other local governments to receive minimum ratings (generally of at least "A") from Standard & Poor's based on the ability to intercept state aid. These programs are also characterized by strong state financial support for eligible localities and, in some cases, coverage requirements.

General Obligation Pledge -- Three states, Nevada, New Hampshire, and Texas, have pledged their full faith and credit to either the underlying issues of the local governments that are purchased by the bond bank or to the pooled issue sold by the bond bank itself. This general obligation pledge allows the bond banks to receive ratings that are equivalent to their states' general obligation ratings.

Annual Appropriation Pledge -- In most cases, annual appropriation-backed bonds are rated one full category below the state's general obligation rating by both Standard & Poor's and Moody's. The **Kentucky Infrastructure Authority** is the most prominent example of the use of this type of credit enhancement.

In a few limited situations, state bond banks have been able to achieve "A" category ratings on pooled issues that do not receive primary credit enhancement from any of the typical forms described above. These bond banks have leveraged funds for local governments using structured cash flow models and overcollateralization. The **New Mexico Finance Authority** receives $10 million per year from an earmarked state tax source, which it leverages based on the credit quality of the underlying borrowers, allowing it to make more loans to new projects. The **Oregon Bond Bank** also receives ongoing appropriations (primarily from state lottery proceeds) which it leverages using an overcollateralization model. Complex cash flow leveraging has not been prevalent among most bond banks for two reasons: 1) most bond banks have state credit enhancements that result in higher credit ratings and increased debt capacity than cash flow models; and 2) unlike other states, both the Oregon and New Mexico bond banks receive ongoing appropriations that enable them to pursue these programs.

As mentioned earlier, several bond banks serve as the financial and debt issuance entity for their state's EPA wastewater State Revolving Fund (SRF) program. Some of these (SRF) programs (although not necessarily state bond banks) have used innovative reserve and cash flow models to leverage federal and state capitalization grants in order to provide increased funding for wastewater projects. The credit on these leveraged funds has been remarkably high, with most rated AA and several, including Connecticut, Texas, New York, Massachusetts, New Jersey and Minnesota, achieving AAA ratings on some series.

BOND INSURANCE

The use of bond insurance by bond banks varies, with most bond banks purchasing bond insurance only when it is economically feasible. In general, bond banks stated that bond insurance premiums have been slowly declining in recent years as the bond insurance market has become more competitive. Three bond banks (Maryland, Alaska, and West Virginia) have the majority of their bond issues insured, in part reflecting their lower underlying credit ratings. In a competitive sale, Alaska gives underwriters the option of bidding with or without insurance (which is paid for by the underwriters) and the burden of determining the market value of insurance is thus transferred to the underwriting community.

All bond banks pass along at least a portion of the insurance premium to local borrowers either through a larger loan size or as a mark-up on the underlying loan's interest rate. Maryland subsidizes insurance premiums based on a scale that takes into account the credit quality of the local borrower (e.g., a poorly rated or non-rated localities receive a 70 percent subsidy on the insurance premium, while highly rated localities only receive a 50 percent subsidy). Colorado also subsidizes part of the insurance premium for borrowers participating in its Small Water Resources Program.

USE OF DEBT SERVICE RESERVE FUNDS

The majority of bond bank issues includes a debt service reserve fund, although it appears that those bond banks that receive a state general obligation pledge (Texas and Nevada) or a state annual appropriation pledge (Kentucky) do not typically have debt service reserve funds. New Hampshire is an exception to this generalization -- one of its programs is secured by a state guarantee of debt service but it still contains a debt service reserve fund. Most bond bank debt service reserve funds are funded through bond proceeds, although Alaska, Colorado, Vermont, and West Virginia have occasionally funded their reserve funds with bond bank moneys.

METHOD OF SALE

The majority of bond banks sell their bonds via a negotiated method of sale. The primary reasons cited for utilizing a negotiated sale method were: 1) complexity of structuring a pooled bond issue; 2) a negotiated sale method offers more flexibility to react to last-minute structure and document changes; and 3) experience of selected underwriters in placing pooled debt. One exception is the **New Hampshire Municipal Bond Bank**, which issues primarily via competitive method. New Hampshire has issued competitively for many years, and feels that the marketplace has accepted its issues very well on a competitive basis.

COSTS OF ISSUANCE

Table 3-1 contains a summary of recent costs of issuance by category for selected bond bank issues as reported in the survey. Certain costs are quoted on a per $1,000 bond basis. In reviewing these costs, it is important to remember that these per bond estimates are typically influenced by the par amount of the issue to which they are attributable. Reflecting the

economies of scale, larger issues will tend to be less expensive on a per bond basis. Furthermore, the level of activity in the transaction by particular service providers and participants (such as the legal counsel, underwriter, and financial advisor) and by the bond bank's own staff (or other departments of government) can vary greatly.

Table 3-1

TYPICAL COSTS OF ISSUANCE ON BOND BANK DEBT ISSUES

	Underwriter's Discount	Financial Advisory Fees	Bond Counsel	Trustee	Ratings
Alaska	$9.50/bond	$9,262/issue	$9,268/issue	$3,200/issue	$8,780/issue
Colorado	$8-11/bond	$1-1.50/bond	$28,000/issue	$5,000/issue	$15,000 - 30,000/issue
Indiana	$9/bond	$0.50/bond	$1.25/bond	$0.50/bond	$0.50/bond
Kentucky (1)	$2.31/bond	N/A	$0.08/bond	$0.95/bond	$1.60/bond
Maine	$8/bond	N/A	$2.50/bond	$0.40/bond	$0.85/bond
Maryland	$7.85/bond	(2)	$24.16/bond	$2.01/bond	$4,000 per participant (3)
Michigan	$7.50/bond	$0.50/bond	$0.70/bond	$1,470 -- $44,000/issue	$1,500 -- $25,000/issue
Mississippi	N/A	$27,500/issue	$44,000/issue	$5,000/issue	$8,500/issue
Nevada	$5-6/bond	$12,000-25,000/issue	$20,000 - 50,000/issue	N/A	$5,000 - 20,000/issue
New Hampshire	N/A	$25,000/issue	$18,000 - 32,000/issue	$5,000/issue	$10,000/issue
New Mexico	$8.11/bond	$0.83/bond	$1.00/bond	$0.14/bond	$0.09/$1,000 bond
North Dakota			no response		
Oregon	$10.90/bond	$4.20/bond	$2.80/bond	$0.70/bond	$3.70/bond
Texas	$6.63/bond	$0.50/bond	$0.70/bond	none	$0.58/bond
Vermont	$5.90/bond	$30,000/year	$40,000/year	(4)	average $31,500/issue
Virginia (VRA)	$9.45/bond (5)	$1.33/bond	$3/bond	$0.17/bond	$0.50/bond
West Virginia	$9.77/bond	N/A	$1.68/bond	$0.19/bond	$1.28/bond

(1) Underwriter's counsel is $0.49/bond.
(2) Separate financial advisory fee is not charged for bond bank program.
(3) Rating fee is covered in bond insurance premium.
(4) $350 for first $1 - 15 million; $150 over $15 million
(5) Includes underwriters' counsel; $7.45/bond without underwriter's counsel.

CONTINUING DISCLOSURE

In an effort to increase disclosure on municipal bond issues, **the Securities and Exchange Commission (SEC)** adopted Rule 15c2-12, which requires underwriters to possess a written commitment from the issuer or other **"obligated person"** to provide certain ongoing financial, operating, and bond-related data before underwriting that issuer's bonds. The concept of "obligated person" is particularly important in the context of pooled issues, because "obligated person" in Rule 15c2-12 is defined generally as any party that has a contractual or other arrangement to support payment on all or a portion of the bonds. In pooled bond issues, local borrowers are typically contractually obligated to support payment on at least a portion of the bonds, and very often their loan repayments are actually pledged to pay bond debt service. Rather than forcing pooled issuers (such as bond banks) to provide ongoing disclosure for every local borrower in its bond pool, Rule 15c2-12 allows transaction participants to determine which obligated persons are material to each bond issue at the time of issuance. This determination of materiality must be based on specified objective criteria included in the final official statement.

The objective criteria formulated by bond banks in determining disclosure responsibilities of local borrowers varies, but most bond banks have generally taken on the responsibility of meeting Rule 15c2-12 requirements themselves without forcing local borrowers to increase their disclosure to the market. Most bond banks do require that if a locality's outstanding loan balance exceeds more than a specified percentage of the pool's total outstanding local loan pool, then that locality will be an obligated party, responsible for providing ongoing annual disclosure either through the bond bank or directly to the market itself. Table 3-2 contains a summary of the criteria used by the bond banks that trigger the obligated party reporting requirements. For most bond banks with many separate loans outstanding, relatively few localities meet the thresholds.

Table 3-2

LOCALITY OBLIGATED PARTY DISCLOSURE REQUIREMENT

	Locality Criteria
Colorado Water Resources & Power Development Authority	
Small Water Resources Program	Local loan exceeds greater of DSR requirement or 10% of loan pool
Water Pollution Control Revolving Fund (SRF)	Local loan exceeds 10% of bond issue
Kentucky Infrastructure Authority	Local loan exceeds 10% of loan pool
Maine Municipal Bond Bank	Local loan exceeds 20% of loan pool
Maryland Local Govt. Infrastructure Fin. Prog.	Local loan exceeds 10% of loan pool
Michigan Municipal Bond Authority	Local loan exceeds 20% of loan pool
New Hampshire Municipal Bond Bank	Local loan exceeds 20% of loan pool
Oregon Bond Bank	Local loan exceeds 10% of loan pool
Vermont Municipal Bond Bank	Local loan exceeds 15% of loan pool
West Virginia Water Development Authority	Local loan exceeds 20% of loan pool

While the majority of bond banks have assumed locality disclosure responsibilities in terms of Rule 15c2-12, the **Virginia Resources Authority**, **Michigan Municipal Bond Authority**, and **Indiana Bond Bank** require that all local borrowers provide ongoing disclosure. Most bond banks do require that localities provide annual financial and operating information to the bond bank itself in order to perform surveillance on outstanding loans and to monitor creditworthiness of the pool.

SECTION FOUR: LOCAL BORROWER PROFILE

As described throughout this report, bond banks vary significantly in the types of programs they offer, their administration, and their debt issuance practices. Similarly, the local entities that bond banks service also vary in their project needs and credit quality. This section addresses the variations among local entities that borrow through bond banks.

USE OF PROCEEDS BY LOCAL BORROWERS

Water, sewer and school projects were cited by bond banks as the most common use of proceeds from long-term bond pool programs. Sewers were cited as one of the leading uses, in part because many of the bond banks surveyed also issue bonds on behalf of their state's wastewater revolving loan fund (SRF). While certain bond banks provide a large amount of long-term financing to schools, other bond banks have provided no long-term school financing, in part because their states may have separate school financing vehicles or assistance programs. School districts in Indiana, Michigan, and North Dakota receive substantial assistance from their respective bond banks due to the cash flow financing programs these entities operate.

Tables 4-1 through 4-3 contain a break down by major type of program of the use of proceeds by local borrowers, usually based on bank lending activity through fiscal year 1994 or 1995. These figures are stated as a percentage of total dollar volume of local borrower loans outstanding in each program category.

Table 4-1

Long-Term Bond Pool (1)						
State	***Water***	***Sewer***	***Transportation***	***Schools***	***Solid Waste***	***Other***
Colorado	30.0%	70.0%				
Indiana	45.0%	50.0%				5.0%
Kentucky	40.0%	59.0%			1.0%	
Maine	15.0%	5.0%	10.0%	53.0%	3.0%	12.0%
Maryland	31.2%	16.2%	12.4%	8.8%	0.2%	31.2%
Michigan		56.6%	8.6%	3.8%		31.0%
Mississippi					100.0%	
Nevada	75.0%	25.0%				
New Mexico	14.0%	15.0%			63.0%	8.0%
North Dakota	13.0%	37.0%	11.0%	25.0%	6.0%	6.0%
Oregon	41.0%	31.3%				27.7%
Texas	27.0%	69.0%				4.0%
Vermont	1.0%	3.0%		75.0%	1.0%	20.0%
Virginia (2)	43.0%	34.0%			22.0%	1.0%
West Virginia	24.0%	76.0%				

(1) The Alaska Municipal Bond Bank Authority and the New Hampshire Municipal Bond Bank did not break down their use of proceeds by program.
(2) Percentages cited are applicable to the Virginia Resources Authority's long-term stand-alone issue program.

Table 4-2

Cash Flow Financing						
State	***Water***	***Sewer***	***Transportation***	***Schools***	***Solid Waste***	***Other***
Indiana				65.0%		35.0%
Michigan				100.0%		
North Dakota				100.0%		

Table 4-3

Equipment Lease						
State	***Water***	***Sewer***	***Transportation***	***Schools***	***Solid Waste***	***Other***
Indiana				20.0%		80.0%
New Mexico	1.0%	1.0%	20.5%		7.5%	70.0%
North Dakota				100.0%		
Michigan		5.0%	35.0%	60.0%		

AVERAGE LOAN SIZE TO LOCAL BORROWERS

The average size of loans to local borrowers is generally small; typically less than $3 million. The relatively small size of average loans made illustrates how bond banks are especially useful to smaller borrowers. Table 4-4 summarizes the average range of loans made to local borrowers by each bond bank.

Table 4-4 Average Loan Size

State	***$0-$999,000***	***$1,000,000-$2,999,999***	***$3,000,000+***
Alaska			✘
Colorado			✘
Indiana	✘		
Kentucky		✘	
Maine		✘	
Maryland		✘	
Michigan		✘	
Mississippi			✘
Nevada			
New Hampshire		✘	
New Mexico	✘ (equipment)		✘ (infrastructure)
North Dakota	✘ (CFP)	✘ (SRF)	
Oregon		✘	
Texas		✘	
Vermont		✘	
Virginia			✘
West Virginia		✘	

BORROWER CREDIT REQUIREMENTS

Bond banks, as lenders to local governments, typically have credit requirements that local borrowers must satisfy in order to qualify for loans. These may be a general obligation pledge by local borrowers and/or various forms of minimum requirements for debt service coverage, either in the case of self-supporting activity or for state aid that may be interceptable. The importance that such credit requirements on local borrowers may have for a bond bank's credit ratings varies among bond banks, and, in turn, depends on the nature of state credit enhancement, if any, given to the bond bank. Nearly half of the state bond banks surveyed require a general obligation pledge as a condition for making loans to general purpose, tax-levying borrowers. In the case of self-supporting (enterprise type) activities where the underlying loan is backed by a net revenue pledge, bond banks typically have minimum credit requirements related to debt coverage and the issuance of additional bonds. Where bonds are additionally secured by a pledge of state aid or shared-revenue payments, similar minimum coverage requirements with respect to the ratio of state payments to debt service are common. Table 4-5 summarizes each bond bank's credit requirements for local borrowers.

Table 4-5

State	State Bond Bank Credit Requirements for Local Borrowers
Alaska	Generally requires a general obligation pledge. Bond bank also funds local government utility projects through revenue bonds.
Colorado	Does not require a general obligation pledge. Borrowers must meet other minimum credit requirements.
Indiana	Does not require a general obligation pledge. The minimum credit standard is debt service coverage of 1.25x.
Kentucky	Does not require a general obligation pledge. Borrowers must have a dedicated revenue stream other than general fund receipts or other taxes and have a 1.0x debt service coverage ratio.
Maine	Does not require a general obligation pledge. Other minimum requirements include a 1.0x debt service coverage ratio.
Maryland	Requires a general obligation pledge.
Michigan	General obligation pledge is sometimes required for bond insured issues. (See Section One for state aid intercept credit requirements)
Mississippi	Requires a general obligation pledge.
Nevada	Requires a general obligation pledge.
New Hampshire	Requires a general obligation pledge.
New Mexico	Does not require a general obligation pledge. Bond bank does have minimum coverage requirements.
North Dakota	Does not require a general obligation pledge. Reserve bonds are required to meet 1.20x net revenue coverage requirement.
Oregon	Requires a “full faith and credit” pledge up to that allowed by a recently passed property tax limitation measure.
Texas	Accepts revenue pledges provided that the borrower covenants to raise rates which will generate a positive cash flow.
Vermont	Requires a general obligation pledge.
Virginia	Does not require a general obligation pledge. On revenue bonds, bond bank requires net revenues to cover debt service 1.15x unless the system is a wholesale system and then the coverage requirement is 1.0x.
West Virginia	Does not require a general obligation pledge. Bond bank requires coverage of 1.15% on debt when the bond reserve is not fully funded, and 1.10% when it is fully funded.

When asked about the importance of the credit requirements for local borrowers on their bond bank’s rating, only a few bond banks responded. Of those who did respond, only a few indicated they were important, while others reported they were not important at all.

Oregon's rating is very dependent on the "full faith and credit" pledge required of local borrowers as it does not receive any typical form of state guarantee or credit enhancement on its bond issues. The ability of the Michigan Municipal Bond Authority to receive high quality ratings and bond insurance on certain programs is very reliant on maintaining local state aid coverage ratios.

BALANCE BETWEEN LOANS TO WEAKER AND STRONGER CREDITS

Only four of the seventeen state bond banks stated that their program attempts to strike a balance between loans to weaker versus stronger credits in order to maintain a minimum level of credit quality on their bond issues. Two bond banks, New Mexico and Oregon, must carefully monitor the credit quality of their existing and future borrowers due to the highly structured cash flow nature of their programs. The credit quality of these programs' underlying loan pool is one of the key determinants in the size of their programs and their ratings. The **Colorado Water Resources and Power Development Authority** also stated that they attempt to strike a balance between weaker and stronger credits because it makes direct loans, rather than through the use of bond proceeds, for those loans of $1 million or less. The **Michigan Municipal Bond Authority** also carefully structures the loan pool that is funded through its wastewater SRF program in order to maintain high quality ratings. However, other programs in Michigan are structured with two levels of security so that local borrowers' credit quality is not the key criteria in determining the ratings on Michigan's bonds.

LOCAL BORROWER DEFAULTS

One of the early concerns about bond banks was that they would directly or indirectly stretch the credit of the sponsoring state government too thin and that their lending practices would eventually succumb to financing weak projects. However, on the contrary, bond banks have generally restricted themselves to financing inherently creditworthy governments and essential projects. Of the bond banks surveyed, only two banks reported having had any local borrowers default on their obligations to the bond bank. Since its creation in 1981, the **Colorado Water Resources and Power Development Authority** had only one direct loan borrower default. Following the default, the loan was restructured, and has since been paid. The only other bond bank to report a monetary default was the **West Virginia Water Development Authority**. According to the Authority, there were two local borrowers in default as of October 1, 1995. In one case, the Authority sought and obtained the appointment of a receiver for the Greater St. Albans Public Service District. In the other case, the Authority believes that the rate adjustments made by the Northern Wayne County Public Service District will enable them to pay debt service on the 1995 Series Bonds. It should be noted that the questionnaire asked specifically about defaults and not about borrowers that might have experienced difficulties and whose loans where restructured before an actual default occurred. One of the advantages that bond banks can offer is their ability to monitor local credits and to act as a buffer between them and the ultimate investor in case real or

potential repayment difficulties arise. This role of monitor and mentor when and if trouble arises helps both the investor and local government.

CONCLUDING OBSERVATIONS

The seventeen bond banks reviewed in this study provide a rich variety of administrative and program structures and experience. While the overarching mission has typically been to improve access to the financial markets for small governments, their approaches have varied depending on the relative priority of needs and the legal and political environment in which they were created. The earliest bond banks were seen as general extensions of state creditworthiness to close the marketing gap for small, isolated municipal issuers. Not surprisingly, greatest progress in establishing bond banks was made in largely rural states in which there were no strong regional financial markets. After early adoptions in several states, the bond bank movement slowed down as opposition from competing interests and concerns about stretching state credit enhancements too thin began to crystallize.

Bond banks, as other municipal bond issuers, have had to deal with the changing landscape of federal tax law. The continually tightening restrictions on investments of tax-exempt bond proceeds in the Federal tax laws, culminating in the passage of the Tax Reform Act in 1986, not only removed what had been a major cost-reducing mechanism for the bond banks, but left them with new compliance and reporting burdens. This Act also provided certain advantages to commercial banks that invest in small-issue governmental borrowers, which has offset some of the advantages that bond bank borrowing would otherwise generate. However, as the report illustrates, the bond banks continue to succeed in leveraging other economies of scale on behalf of the small borrowers. With the expanded scope of state intercepts and the pooling of bond insurance, to make it accessible to the smaller communities, the concept of the bond bank continues to be vigorous.

More recent bond bank formations have been targeted to addressing special needs of typically smaller issuers, especially in the area of environmental improvements. The creation of the State Revolving Fund (SRF) program in 1987 to provide loan funds for wastewater treatment facilities injected a new mandate for pooling that a particular class of borrower and those states with bond banks often chose to use as the financial administering arm of the program. The continuing replacement of federal grants with credit assistance in major program areas has quickened interest in state-based credit mechanisms. Expansion of the SRF's revolving fund concept to drinking water and to transportation projects may further expand the portfolio of financible projects for bond banks in some states. Offsetting that development, however, may be the pull of existing organizational structures that now oversee these program areas to maintain their financing independence and to design specialized bond banks within existing departments.

Appendix A: CIFA Bond Bank Survey

Programs & Program Structure

(Please note: you may attach program materials rather than completing individual questions.)

1. What types of financing programs does your bond bank offer to local governments? Please attach a description of your programs.

Long-term bond pool ______________
Tax anticipation note or other cashflow financing ______________
Equipment leasing program ______________
Others (Please describe) ______________
____
____

2. For each program listed above, please mark any applicable type of credit enhancement your bank offers.

	Moral Obligation on DSR	*General Obligation*	*Annual Appropriation*	*State Aid Intercept*
Long-term bond pool				
Cashflow financing				
Equipment leasing				
Others (Please list)				

3. Does your bond bank have the ability to intercept state aid? If yes, is all state aid eligible to to be intercepted or only specific categories of state aid? Do you require that eligible state aid provide a certain level of coverage on debt service before approving a locality's borrowing?

4. Are any of your programs similar to the State Revolving Loan Fund programs (SRF), whereby capital is regularly recycled for new loans to local borrowers? If yes, please attach a short description of its structure, emphasizing the revolving nature of the program.

5. a. Does your bond bank have any plans to expand current programs or develop new programs? If yes, please briefly describe the proposed program and how demand for this type of service or program originated.

b. Recent legislation passed by the U.S. Congress will allow states to set up State Infrastructure Banks (SIBs) that would fund transportation infrastructure. Has your organization considered expanding its operations to become a SIB?

6. Please rate the following reasons cited by local borrowers when accessing financing through bond bank programs. (Please rate these items on a scale of 1 to 10 in which 1 is the most frequently cited reason and 10 is the least frequently cited reason.)

Savings in costs of issuance _______
Avoidance of debt limitations _______
Could not access market on own _______
Financing too small for stand-alone issue _______
No secondary market disclosure requirement: _______
Lower interest rates _______
Avoidance of voter approval _______
Less administrative burden _______
No rating requirement: _______
Other: _______

7. Please briefly describe any other services or benefits you provide not mentioned in earlier responses.

Administrative

8. How does your bond bank finance its operations?

	Amount of Fee/Appropriation
Local Borrower Fees:	______________________
Lump-sum fee at closing	______________________
Mark-up on interest rates of loans	______________________
State Appropriation/Support:	______________________
Other (Please list)	______________________

Is your organization self-supporting? If no, what percentage is covered by fees or interest earnings?

9. Where is your program located within the state organizational structure?

State Treasurer's Office	______________________
Independent Authority	______________________
State Department of Finance	______________________
Other (Please describe)	______________________

10. To what extent have arbitrage restrictions limited your ability to expand your programs or reduced the level of savings that you can offer to local borrowers? Which specific arbitrage restriction do you find most limiting?

Debt Issuance

11. How many bond issues does your bond bank sell per year? ______ Average par amount?________________

12. What do you consider to be the minimum size for a pooled issue to be sold publicly? What do you consider to be an optimal size? What are your criteria in sizing a pooled bond issue?

13. What are your ratings?

Program	*Moody's*	*Standard & Poor's*	*Fitch*
Long-Term Bond Pool			
Cashflow Financing			
Equipment Lease			
Other (Please list)			

Have your ratings recently been changed and if yes, why were they changed? Have you approached the rating agencies recently with any restructuring ideas?

What are your state's general obligation ratings?

Moody's _____ Standard & Poor's _____ Fitch _____

14. Are your issues sold on a competitive or negotiated basis?

15. Do your issues contain a debt service reserve fund? If yes, how is it funded and what investment instruments do you typically invest it in?

16. Does your program entirely recoup costs of issuance and debt service reserve fund debt service through a mark-up on interest rates or through upfront fees charged to local borrowers? If no, how are these costs covered?

17. Do you use bond insurance regularly or occasionally? Do you pass along the premium to local borrowers?

18. What is the average maturity of your bond issues?

19. What are your average costs of issuance (on a per bond basis)? Include the following fees if possible:

Underwriter's discount	______________	Trustee	______________
Financial advisory fees	______________	Rating agency	______________
Bond counsel	______________	Printing	______________

20. How are you implementing the recent amendments to Rule 15(c)2-12 on continuing disclosure? Are you requiring increased disclosure by local borrowers or are you assuming responsibility for their obligation? Please attach a summary of your criteria for determining the disclosure requirements of local borrowers.

Local Borrower Profile

21. Please break down (as percentage of total dollar volume of local borrower loans) the general use of proceeds by local borrowers.

Program	*Long-Term Bond Pool*	*Cashflow Financing*	*Equipment Lease*	*Other*
Water				
Sewer				
Transportation				
Schools				
Solid Waste				
Other				

22. What is the average size of your loans to local borrowers? ___________________________

23. Do you require a general obligation pledge by local borrowers? If not, do you have other minimum credit (i.e., coverage) requirements? How important are these credit requirements to your ratings?

24. Does your program attempt to strike a balance between loans to weaker vs. stronger credits in order to maintain a minimum level of credit quality on your bond issues?

25. Have any local borrowers defaulted on their obligations to your bond bank? If yes, please briefly describe.

Appendix B: General References

GENERAL REFERENCES

Ballard, Jr., Frederic L., *ABCs of Arbitrage: Tax Rules for Investment of Bond Proceeds by Municipalities,* Chicago, IL: American Bar Association. 1994.

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Appendix C: Bond Bank Ratings and Bond Security

BOND BANK RATINGS & BOND SECURITY
As of May 1996

BOND BANKS	Moody's	Standard & Poor's	Fitch	Primary Security
Alaska Municipal Bond Bank Authority	A	A	A	moral obligation of state to replenish DSR
State of Alaska GO	Aa	AA	AA	
Colorado Water Resources & Power Development Authority				
Small Water Resources Program	Aaa - Insured	AAA - Insured	NR	local borrower loan repayment (GO or net enterprise revenue pledge)
Water Pollution Control Revolving Fund (SRF)	Aa	AA	NR	local borrower loan repayment (GO or net enterprise revenue pledge)
State of Colorado GO (1)	N/A	N/A	N/A	
Indiana Bond Bank (2)	NR	A	NR	
Advance Funding Program Notes (Cashflow Financing)	MIG 1	SP-1+	NR	local borrower loan repayment (property tax pledge); standby liquidity facility; certain investment earnings
State Revolving Fund Program (SRF)	NR	A	NR	moral obligation of state to replenish DSR
Hoosier Equipment Lease Program	NR	NR	A	moral obligation of state to replenish DSR
State of Indiana GO	N/A	N/A	N/A	
Kentucky Infrastructure Authority (3)				
Fund A -- Wastewater Revolving Fund (SRF)	A	A	NR	biennial appropriation pledge of state
Fund B – Infrastructure Revolving Fund	A	A	NR	biennial appropriation pledge of state
Fund C – Governmental Agencies Program	A	A	NR	moral obligation of state to replenish DSR
Fund E – Solid Waste Revolving Loan & Grant Program	A	A	NR	biennial appropriation pledge of state
State of Kentucky GO	N/A	N/A	N/A	
Maine Municipal Bond Bank	Aa	A+	NR	moral obligation of state to replenish DSR
State Revolving Fund (SRF)	NR	A+	NR	moral obligation of state to replenish DSR
State of Maine GO	Aa	AA+	NR	
Maryland Local Govt. Infrastructure Fin. Prog. (4)	Aaa - Insured	AAA - Insured	AAA - Insured	local borrower loan repayment (GO pledge)
State of Maryland GO	Aaa	AAA	AAA	
Michigan Municipal Bond Authority				
Equipment & Real Property Financing Program	NR	NR	NR	state aid intercept
Revenue Anticipation Note Program (Cashflow Financing)	NR	SP-1+	NR	pledged locality state aid and ability of state treasurer to intercept state aid
Qualified School Bond Loan Fund (5)	Aa	AA	NR	constitutional obligation of state to make loans to make debt service payments on qualified bonds issued by school districts
State Revenue Sharing Program (6)	NR	A	NR	state aid intercept of certain distributable aid from the state (sales & income taxes, single business tax); locality must meet certain state aid coverage requirements

Transportation Fund Bonds (6)	NR	AA-	NR	state aid intercept of Transportation Fund aid; local loan debt service cannot exceed certain percentages of Transportation Fund aid
State Revolving Loan Fund Program (6)	Aa	AA	NR	SRF -- receives federal capitalization grants; state aid intercept; oversized DSR
State of Michigan GO	Aa	AA	AA	
Mississippi Development Bank	NR	A-	NR	moral obligation of state to replenish DSR
State of Mississippi GO (7)	Aa	AA-	NR	
Nevada Municipal Bond Bank	Aa	AA	NR	general obligation of state
State of Nevada GO	Aa	AA	NR	
New Hampshire Municipal Bond Bank (Non-Guaranteed)	A1	A+	NR	moral obligation of state to replenish DSR
New Hampshire Municipal Bond Bank (State-Guaranteed)	Aa	AA+	NR	unconditional state guarantee of debt service
State of New Hampshire GO	Aa	AA+	AA+	
New Mexico Finance Authority	A	NR	NR	local borrower loan repayment (pledge of certain gross receipts taxes); pledge of NMFA gross receipts tax revenues
Pooled Equipment Program COPs	NR	NR	NR	local borrower loan repayment (pledge of net enterprise revenues or locality's share of certain state aid or taxes)
State of New Mexico GO	Aa	AA	NR	
North Dakota Municipal Bond Bank (8)				
State Revolving Fund Program (SRF)	A1	NR	NR	SRF -- receives federal capitalization grants; local borrower loan repayment (pledge of net enterprise revenues or special assessments); moral obligation of state to replenish DSR
Capital Financing Program	NR	A-	NR	moral obligation of state to replenish DSR
State of North Dakota GO	Aa	AA-	NR	
Oregon Bond Bank	A	NR	A	local borrower loan repayment (GO pledge) from both bond-funded loans and bond bank-funded loans
State of Oregon GO	Aa	AA-	AA	
Texas Water Development Board				
SRF Senior Lien Revenue Bond Program	Aa	AAA	NR	SRF -- receives federal capitalization grants; local borrower loan repayment (GO or net revenue pledge)
GO Bond Program	Aa	AA	AA+	general obligation pledge of the state
State of Texas GO	Aa	AA	AA+	
Vermont Municipal Bond Bank	A	A-	NR	moral obligation of state to replenish DSR; GO of bond bank
State of Vermont GO	Aa	AA-	AA	
Virginia Resources Authority				
VRA Bond Program	NR	AA	NR	moral obligation of state to replenish DSR
Commonwealth of Virginia GO	Aaa	AAA	AAA	
West Virginia Water Development Authority (9)	Aaa - Insured	AAA - Insured	NR	moral obligation of state to replenish DSR
State of West Virginia GO	A1	AA-	NR	

(1) The State of Colorado is constitutionally prohibited from issuing general obligation debt. Colorado does issue lease purchase obligations, which are primarily insured.
The Colorado Water Resources & Power Development Authority also has the ability to issue bonds backed by the state's moral obligation pledge.
In addition, certain Colorado Housing Finance Authority obligations are secured by the state's moral obligation pledge, and rated "A" by Standard & Poor 's.

(2) The State of Indiana is constitutionally prohibited from issuing debt. Indiana has issued lease revenue bonds for certain capital projects through the Indiana State Office Building Commission which are rated "A+"
by Standard & Poor's. Certain Transportation Finance Authority obligations, also appropriation-backed, are rated "A" by S&P.

(3) The State of Kentucky must receive 2/3 voter approval in order to issue GO debt, and has had no GO debt outstanding since 1995. This GO debt was rated AA at the time of maturity. Kentucky has issued
appropriation-backed debt through various authorities and commissions including the Kentucky Infrastructure Authority.

(4) Maryland LGIF received a Baa1 rating from Moody's on its initial issuance in 1988. Since then, its issues have been insured.

(5) Michigan's Qualified School Bond Loan Fund bonds are secured by the state's constitutionally-authorized school loan fund. This fund is an obligation of the
state, and thus Qualified School Bond Loan Fund bonds are rated on par with the state's GO rating by Standard & Poor's and Moody's.

(6) These programs are included under the MMBA's Local Government Loan Program, but have different ratings because they secured by varying sources.

(7) The State of Mississippi was upgraded from AA- to AA in August 1996; the Mississippi Development Bank was upgraded from A- to A at the same time.

(8) New Hampshire Bond Bank issues two different types of bonds: 1) state-guaranteed bonds, which are backed by the state's GO pledge,
and have the same ratings as the state GO; and 2) non-guaranteed bonds, which are backed by the GO of the bond bank and the moral
obligation pledge of the state, and are rated slightly below the state's GO ratings.

(9) West Virginia Water Development Authority bonds carry an underlying rating of A- from Standard & Poor's. However, the majority of its issues are insured.
The State of West Virginia was upgraded to AA- in May 1996.

NR = Not rated
N/A = Not applicable

ABOUT CIFA

The Council of Infrastructure Financing Authorities (CIFA) is a national, non-profit organization of state and local authorities providing financial assistance to meet infrastructure needs. CIFA seeks to: (1) encourage the exchange of information on infrastructure financing among and between the States, the national government and the private sector; (2) conduct research on issues, trends and events in the area of public finance; and (3) advocate sound public policies advancing infrastructure financing. The CIFA monograph series is intended to provide a national platform for the presentation of new ideas and analyses of issues affecting federal, state and local infrastructure programs. For additional information on CIFA and the monograph series, contact James N. Smith at (202) 371-9694.

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