

# IMPROVING LOCAL GOVERNMENT FINANCIAL INFORMATION SYSTEMS

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New York City's financial crisis and the resulting rescheduling of city note payments have helped to expose the overwhelming inadequacy of cities' financial information systems.<sup>1</sup> Eighteen months ago, New York admitted that it had accumulated a \$3-4 billion deficit while professing to have a balanced budget.<sup>2</sup> Since then, the federal government, city councils, state legislatures, and citizens groups throughout the country have begun to reconsider the efficacy of local government financial reporting and control systems.

In one sense, this scrutiny has turned up less to fear than many had expected. Few major cities have discovered huge hidden budget deficits. Most American cities have tight limits on the amount they can borrow,<sup>3</sup> and without borrowing, a city cannot incur significant deficits. Thus, despite their management inflexibility, conservative statutory debt limitations have at least served the main purpose for which they were devised: they have prevented local politicians from spending without submitting to the checks and balances inherent in the process of raising taxes.

This positive result notwithstanding, one fact has become increasingly clear: in city after city and county after county, budgeting, accounting, payroll, purchasing and program evaluation systems and

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NATIONAL COMMITTEE ON GOVERNMENTAL ACCOUNTING, GOVERNMENTAL ACCOUNTING, AUDITING AND FINANCIAL REPORTING (1968) [hereinafter cited as GOVERNMENTAL ACCOUNTING].

1. Throughout the Article, I use the term "city" as shorthand for all local government entities, including cities, counties, townships and independent districts. I intend my comments to apply to suburban governments as well as central cities, since the suburbs have similar problems.

2. For a history of the New York City financial crisis, see ANNUAL REPORT OF THE COMPTROLLER OF THE CITY OF NEW YORK FOR FISCAL YEAR 1975-1976 (1976); MUNICIPAL ASSISTANCE CORPORATION FOR THE CITY OF NEW YORK, ANNUAL REPORT 1976 (1976); Shalala & Bellamy, *A State Saves a City: The New York Case*, 1976 DUKE L.J. 1119.

3. See UNITED STATES ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, STATE-LOCAL REVENUE SYSTEMS AND EDUCATIONAL FINANCE, Appendix C (1971); UNITED STATES ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, STATE CONSTITUTIONAL AND STATUTORY RESTRICTIONS ON LOCAL GOVERNMENT DEBT (1961).

procedures have become antiquated and wholly inadequate to meet the needs of modern management. New York may be the only major city to face the threat of outright bankruptcy, but hundreds of other cities are subject to the same financial pressures which led New York to overspend.<sup>4</sup> Increased unionization of city workers and their resultant demands for higher wages; drops in school populations without commensurate cuts in school staffs; public resistance to tax increases; recession-induced losses of revenue; increased demand for police coverage, new sewage treatment plants, cleaner streets, and more social welfare programs; and, finally, the movements of the cities' tax bases to the suburbs—all of these have left local governments throughout the nation in an unprecedented financial squeeze.<sup>5</sup>

Confronted with this situation, local leaders should be demanding much more information from their financial systems. Data on programs are needed to estimate the savings possible from cutting programs, while performance and productivity data are necessary to stimulate increases in productivity. Better accounting data are needed to speed up collections from federal and state governments for reimbursable programs, and more frequent tax assessments and collections can help to improve local government cash flow.<sup>6</sup> But time after time, existing financial systems have proven incapable of meeting these needs. A local government executive asking for a straightforward answer to a simple question such as "what does it cost to pick up a ton of garbage?", or "what do we pay for an hour of police patrols?", gets either no answer at all, or an answer wrapped in the jargon of fund transfers, line items, and the other arcane terms of the accountant's trade.<sup>7</sup>

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4. See JOINT ECONOMIC COMM., 94TH CONG., 2D SESS., NEW YORK CITY'S FINANCIAL CRISIS: AN EVALUATION OF ITS ECONOMIC IMPACT AND OF PROPOSED POLICY SOLUTIONS 11-36 (Comm. Print 1975). The effects of these problems on the New York situation are discussed in Shalala & Bellamy, *supra* note 2, while a broader perspective is offered in Blaydon & Gilford, *Financing the Cities: An Issue Agenda*, 1976 DUKE L.J. 1057.

5. See generally T. MULLER, GROWING AND DECLINING URBAN AREAS: A FISCAL COMPARISON (rev. ed. 1976); Blaydon & Gilford, *supra* note 4; Peterson, *Finance*, in THE URBAN PREDICAMENT 35 (W. Gorham & N. Glazer eds. 1976).

6. Useful discussions of some of the current problems in administration of the property tax can be found in H. AARON, WHO PAYS THE PROPERTY TAX? 8-17 (1975); UNITED STATES ADVISORY COMMISSION ON INTERGOVERNMENTAL RELATIONS, THE PROPERTY TAX IN A CHANGING ENVIRONMENT: SELECTED STATE STUDIES (1974); Sternlieb & Lake, *The Dynamics of Real Estate Tax Delinquency*, 29 NAT'L TAX J. 261 (1976).

7. Even in New York City, where the immediate focus has been on the cover-up of ever-increasing deficits, the more substantial problem is the need for a more management-oriented financial system. Modifying accounting procedures merely to prevent concealment of future deficits will not in and of itself solve New York's financial problems.

Three major factors have contributed to the present inadequacy of local government financial information systems. First, the management of local government has become much more complex over the last twenty years. State and local governments have grown dramatically;<sup>8</sup> as many new federal and state programs have become available, cities have become increasingly involved in a variety of activities, such as public housing, medical care for the poor, and environmental protection, none of which were previously undertaken by local governments.<sup>9</sup> This explosion in the number of responsibilities assumed by the cities has been accompanied by a corresponding explosion in the quantity and complexity of municipal accounting and reporting procedures. While the complexity of a financial information system would be expected to grow as the scope of governmental operations expands, additional complexity has been introduced by the variety of procedures which local governments must use to satisfy the requirements of state and federal grant programs. Each grant often carries with it unique accounting and reporting requirements,<sup>10</sup> and city financial management systems have simply not been able to keep pace with these frequently changing and often conflicting requirements. They have, for the most part, remained unchanged. Despite the increasing need for more comprehensive information, manual accounting systems and simple line-item budgets oriented toward personnel categories and objects of expenditures still predominate in most local governments.<sup>11</sup>

A second major reason that local governments have not developed adequate financial systems is that city employees often find it in their interest to retain the obfuscation inherent in outmoded systems. Information is power, and if no one but the bureaucracy can understand what is happening, bureaucrats retain effective control over operations. If quantitative measures of productivity are unavailable to middle managers, union leaders need hardly worry about losing arguments over low work productivity. Nor is a civil servant's job likely to be threatened if the city does not have access to information that is required to

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8. In constant 1955 dollars, state and local expenditures increased from \$34.9 billion in 1955 to \$89.5 billion in 1974, an increase from 9.2% to 12.1% of the gross national product. Sunley, *State and Local Governments*, in *SETTING NATIONAL PRIORITIES: THE NEXT TEN YEARS* 373 (H. Owen & C. Shultze eds. 1976).

9. See COMMITTEE ON COMMUNITY DEVELOPMENT, THE DOMESTIC COUNCIL, *1976 REPORT ON NATIONAL GROWTH AND DEVELOPMENT: THE CHANGING ISSUES FOR NATIONAL GROWTH* 45-46 (1976).

10. See, e.g., Uniform Administrative Requirements for Grants-in-Aid to State and Local Government, 34 C.F.R. §§ 256.1 *et seq.* and Appendix H (1975).

11. The current situations in San Francisco and New York provide useful examples. See text accompanying notes 33-34 *infra*.

evaluate the need for his or her particular position. Similarly, poor performers are unlikely to be identified or dealt with if no one can demonstrate the high cost of their low productivity.

Finally, local governments often lack the expertise necessary to undertake major financial systems reform projects. The typical city manager is rarely trained to develop or use sophisticated financial information systems properly. That most cities lack a strong internal commitment to management has been reflected not only in their attitudes toward management systems, but in their limited efforts to recruit top quality managers as well. While the wages of city workers have increased rapidly in recent years,<sup>12</sup> local government managers continue to be underpaid relative to private industry.<sup>13</sup>

In the pages that follow, I offer no solutions to the political problems associated with overcoming internal bureaucratic resistance to financial reform. Nor do I suggest ways to improve the quality of management in cities or to reverse the movement of an older city's tax base to the suburbs. My objective is more limited: to outline the major considerations involved in undertaking a serious effort to reform a local government's financial management information system. I will first examine the major purposes of financial information systems, and then turn to a discussion of some of their common weaknesses and the avenues for improvement. Finally, I will review the often burdensome effect of state, local and federal laws on efforts to improve local financial administration.

#### PURPOSES SERVED BY A LOCAL GOVERNMENT'S FINANCIAL INFORMATION SYSTEM

A local government's financial information system must serve a wide variety of functions and users. All too frequently, attempted reforms are directed at solving the problems of only a limited segment of management. Almost inevitably, this will result in failure of the attempted reform. Since virtually every change in a financial system requires extra effort from *all* managers, even those who see no benefit to be gained from the effort, many innovations fail to receive the broad-based support that is necessary for their success.

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12. See, e.g., T. MULLER, *supra* note 5, at 16-19, 37-55; Blaydon & Gilford, *supra* note 4, at 1067-68 & n.42.

13. While government salaries are now at least comparable with those in the private sector at middle management levels, see U.S. NEWS & WORLD REPORT, Sept. 25, 1972, at 65-66, the salaries paid at the top levels of industry, see N.Y. Times, April 4, 1975, at 45, col. 1; *id.* Mar. 26, 1975, at 63, col. 5, have no counterparts anywhere in government.

Perhaps the most notable example of this problem is provided by the effort made by several cities to install a Planning-Programming-Budgeting System (PPBS).<sup>14</sup> PPBS was first used in the Defense Department during the McNamara years, where it was credited with the achievement of significant economies and management improvements.<sup>15</sup> As a result of this success, as well as encouragement from federal officials (and from many former federal officials with PPBS exposure who had moved to state and local governments), many cities undertook to install PPBS.<sup>16</sup> To develop a PPBS, a city has to perform several difficult tasks, including: (a) the development of multi-year plans; (b) the calculation of costs of entire programs; (c) the development of a capability to translate these program costs into line-item budgetary categories;<sup>17</sup> and (d) the inclusion of an objectives-oriented evaluation of basic policy options in the budget preparation process.

In concept, there is nothing wrong with undertaking such an effort. The top management of any city has a pressing need for PPBS-type information in order to make reasonable decisions about the overall allocation of city resources. But because of its almost exclusive focus on planning and aggregate resource allocation issues, a PPBS provides little help to operating managers. Operating managers are concerned with their own resources and immediate work objectives. PPBS, in contrast, focuses on longer-term and broader objectives, ignoring the specifics of personnel assignments, purchase decisions and cost accounting. Thus, middle managers usually view PPBS as too costly in terms of management time and effort, and perhaps too costly in monetary terms as well, for the few benefits to be received by the vast majority of those involved.<sup>18</sup>

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14. PPBS is essentially an attempt to institutionalize a common sense approach to budgetary planning. Implementation of such a system requires four basic steps:

(1) Define the objectives of the organization as clearly as possible; (2) find out what the money was being spent for and what was being accomplished; (3) define alternative policies for the future and collect as much information as possible about what each would cost and what it would do; [and] (4) set up a systematic procedure for bringing the relevant information together at the time decisions [are] to be made. A. RIVLIN, *SYSTEMATIC THINKING FOR SOCIAL ACTION* 3 (1971).

15. See generally C. HITCH, *DECISION-MAKING FOR DEFENSE* 30-39 (1965).

16. See E. LYNN & R. FREEMAN, *FUND ACCOUNTING: THEORY AND PRACTICE* 73 (1974).

17. Items (b) and (c) require first that the city establish procedures for summing the costs of entire programs, regardless of how many different organizational units or expense objects are involved, and second, that it have a complementary capability to reverse the process and break down program costs into individual expenditures.

"Expense object" refers to the type of article purchased or service obtained, such as personal services, materials, supplies, equipment, and so forth.

18. For a thorough discussion of PPBS and its difficulties, see E. LYNN & R. FREE-

To overcome this type of problem, one must identify *all* the needs to be served by a financial management system, not just a few of them, and then design reform projects to serve as many of these needs as possible. In particular, a good financial information system must serve four basic needs: planning, control, management, and external reporting.

*Planning.* In order to decide on priorities among programs which cut across organizational units and expense objects, city executives and legislators must have access to information concerning the overall costs and benefits of each program in the city budget. While it is important to assign responsibilities to individual managers for generating revenues and for the delivery of specific goods and services, city officials must also be able to examine the overall programs for which the specific goods and services are provided. Since several agencies and departments may be responsible for different aspects of a particular program, maintaining information at the program level may be a very difficult task. A city's health program, for example, may involve its health department, public hospitals, drug rehabilitation services, clinics for the elderly, family planning clinics, community health education programs, emergency health services, and in-home health care services. Such functions as rat control and inspection of the drinking water supply may also be part of a city's health program. The funds for these services may come from a wide variety of sources—federal and state grants, private grants or donations, user fees, local tax revenues or bond issues. If reasonable decisions are to be made concerning program priorities and funding, information concerning the costs, revenues and effectiveness of each of these services must be brought together by a city's financial information system and projected for future years.

*Control.* Once a city makes its overall programmatic decisions, its legislative body will normally have to make an appropriation. For a local government, the primary purpose of financial control is to insure that appropriations are not overspent. Appropriations are normally adopted by ordinance or by legislative resolution, and local officials rarely have authority to incur obligations or to make payments in excess of the appropriated amount.<sup>19</sup> A city's financial management system

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MAN, *supra* note 16, at 72-89; A. SHICK, BUDGET INNOVATION IN THE STATES (1971). Both of these books also describe other "one-dimensional" budgeting approaches, such as performance budgeting, zero-based budgeting, and "line item" (i.e., expenditure object) budgeting, and touch on the difficulties which have arisen from these approaches.

19. Obligations incurred without an appropriation will generally be unenforceable

must be set up in such a way that each obligation can be checked against an appropriation balance before an obligation is incurred.

Most cities also break each appropriation down into more detailed allotments and budget schedules to help insure that funds are actually allocated to the goods and services which the city council had intended. When this is the case, the financial system must also facilitate adequate control at this level of detail.

A city financial system must also provide a second kind of control: it must keep track of city resources closely enough to protect against misuse or theft of public funds. The importance of stewardship should not be underemphasized. No government can retain the confidence of its people if the public begins to suspect that its tax dollars are not being honestly managed.

*Management.* A third function of a financial information system is to make certain that anticipated revenues are realized and that funds are utilized effectively once they are appropriated. Managers must be held responsible for the effective use of the resources or funds they manage. Financial information must be organized in a way that will make it possible to evaluate the efficiency with which specific activities are being performed. On the revenue side of the budget, this means that collections should be measured against monthly or quarterly projections, and that adequate information must be available to permit managers to prepare claims for state and federal reimbursements on a timely basis. On the expenditure side, tools such as unit cost standards and cost accounting<sup>20</sup> must be used in order to facilitate the elimination of waste in achieving programmatic goals.

Explicit criteria against which financial performance can be measured must be developed. For example, if the basic objective of a garbage collection department is to provide reliable collection service twice a week to all members of the community, financial performance could be measured by calculating the total costs per ton of garbage collected, including the cost of equipment, personnel, supplies, materials, buildings, maintenance and indirect overhead. This total unit cost

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against a municipality. See 15 E. McQUILLIN, *THE LAW OF MUNICIPAL CORPORATIONS* §§ 39.63-.64 (3d ed. rev. 1970).

20. The National Committee on Governmental Accounting (NCGA) defines cost accounting as providing for "assembling [*sic*] and recording of all the elements of cost incurred to accomplish a purpose, to carry on an activity or operation, or to complete a unit of work or a specific job." *GOVERNMENTAL ACCOUNTING* 157 (Appendix A). Unit cost is "the cost of producing a unit of product or rendering a unit of service; for example, the cost of treating and purifying a thousand gallons of sewage." *Id.* at 171 (Appendix A).

per ton could be compared among various work teams within the city to determine the efficiency of each team and to evaluate the performance of each team leader. To measure the efficiency of the entire garbage department, unit costs could be compared with those of other cities or private collection companies.

While the development of evaluative criteria may not be as easy in other areas of public service as it is for garbage collection,<sup>21</sup> such criteria are nonetheless necessary if local government management and budgeting is to be improved. Regardless of how management is to be evaluated, financial information must be organized in a way that will make it possible to evaluate the efficiency with which activities are being performed.

*External Reporting.* A final function of a financial management system is to provide any information that may be needed to satisfy a city's external reporting requirements. External reporting involves the preparation of legal reports required by state statute or local ordinance, offering circulars required by underwriters in order to market municipal bonds and notes, and reports tailored to insure good communication with the public. While legally required reports normally consist only of formal financial statements<sup>22</sup> which are generally inadequate vehicles for communicating with the public, disclosure via offering circulars has become increasingly detailed, particularly after the recent series of financial crises in New York City.<sup>23</sup>

An informed citizen should be able to understand where his government's funds come from, what goods and services are bought with them, and how performance has changed over time, without having to fight through complicated technical reports. A city's financial reports must make information available in a way which can be understood by laymen, without being oversimplified so much that they contain incorrect or misleading statements. A citizen should be able to determine not only current spending, but something about longer range trends. Since overhead costs comprise a large portion of the costs of

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21. For some general discussions concerning the difficulties of evaluating costs and benefits of environmental protection or health care programs, see B. ACKERMAN, *et al.*, *THE UNCERTAIN SEARCH FOR ENVIRONMENTAL QUALITY* (1974); A. RIVLIN, *supra* note 14.

22. *Cf.* 15 E. MCQUILLIN, *supra* note 19, § 39.06.

23. See Petersen, Doty, Forbes & Bourque, *Searching for Standards: Disclosure in the Municipal Securities Market*, 1976 DUKE L.J. 1177. If this trend toward increased financial disclosure continues, cities which have financial reporting systems that are capable of readily assembling the requisite information for an offering circular may find themselves at an advantage in the municipal bond market.

most government programs, the taxpayer should be made aware of indirect overhead costs as well as the direct costs of programs. Where possible, spending should also be broken down by various geographic areas of the city, and information concerning the nature of the city tax base and how it is changing over time should be made available. Such information is important not only to keep the public informed, but also to stimulate citizen interest in local government operations.

Unfortunately, a financial information system which effectively serves one of these purposes may not automatically meet the others. As a city designs a system to fulfill one set of requirements, it may become increasingly difficult or even impossible to meet the other objectives. If, as is often the case, the total focus is on stewardship, the resulting procedures may be so cumbersome and bureaucratic that attempts to stimulate good management through the financial system may be precluded. If one organizes charts of accounts and financial reports solely for the purpose of meeting legal requirements, it may be impossible to produce understandable reports for the general public. Similarly, a budget written strictly in programmatic terms might make it easy for executives and local legislators to reach major policy decisions, but impede satisfaction of legal reporting requirements and effective day-to-day management.

This conflict of objectives does not mean that it is impossible to develop a financial information system which meets all of the various purposes such a system must serve. Rather, it simply means that careful attention must be paid to developing flexible and sophisticated financial systems, and that certain principles must be followed in the development of such systems. The following sections discuss these principles and what must be done if one system is to satisfy all four basic purposes of a local government financial information system: planning, control, management, and external reporting.

#### FLEXIBLE ACCOUNT CLASSIFICATION: THE KEY TO SERVING MULTIPLE FINANCIAL MANAGEMENT PURPOSES

If a city's financial information system is to meet the multiple purposes described in the previous section, it must be able to produce a flexible set of financial reports in which the same dollar amounts are classified many different ways. Program planners need budgets, plans and actual expenditures (direct and indirect) classified according to programs without regard to organizational divisions of responsibilities for each program or the specific expense items involved. A line manager, on the other hand, needs reports structured along organizational

rather than program lines, without any allocation of indirect costs, so that he can evaluate the efficiency of his unit. Finally, a purchasing manager needs reports structured primarily by expense objects, not by organizational units or programs. There are many other examples of such disparate and often conflicting needs.

Unfortunately, most cities' financial systems are not set up to provide this flexibility. In large part, this is because city financial systems are most commonly set up according to "accounts" without a clear definition of exactly what constitutes each account. Often one portion of an account code is used to mean different things at different times. A single code may be used to represent either an expense object, an organization, or even an activity, depending on the circumstances. When reports are prepared by "code," it becomes almost impossible to know what is meant; the report is truly a mixture of apples and oranges. Such systems are also characterized by interfund transactions<sup>24</sup> and adjusting entries,<sup>25</sup> all of which add to the general level of confusion.

An example from the New York City budget system may help to clarify this point. New York City's account code, as defined in the city's *Manual of Accounts*, is a fourteen-digit code comprised of five fields, as follows:

<i>Department</i>	<i>Activity</i>	<i>Expense</i>	<i>Fund Class</i>	<i>Year</i>
XXX	XXXX	XXX	XX	XX

Each allowable fourteen-digit code is set up on the Comptroller's books as a separate account, and all basic reports are prepared according to these classifications. Yet it is almost impossible to determine what a given fourteen-digit code represents simply by looking at the code. For example, "Department" is sometimes an entire agency, but other times only a portion of an agency. "Activity" can be either an organizational subdivision within an agency, a portion of an organization, a program, a legally mandated unit of appropriation, a federally funded grant project,

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24. An interfund transaction involves a transfer of assets or liabilities from one fund to another. "Since each fund is considered as a separate entity, amounts receivable from or payable to other funds should be reflected in the accounts of each fund and separately presented in the financial statements. . . ." AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, AUDITS OF STATE AND LOCAL GOVERNMENTAL UNITS 10 (1975). Unfortunately, such transfers may complicate a city's financial picture considerably. Assets and liabilities of individual funds may be inflated as resources are shifted from one fund to another, and any hope of restricting the use of resources allocated to a particular fund is destroyed as the resource's origin is obscured after a series of transfers.

25. "Adjusting entries" is a general term used in accrual accounting to define compensating entries for such matters as bookkeeping errors, write-offs of worthless assets, revaluation of assets, or transfers from one account to another. See W. PATON & R. DIXON, ESSENTIALS OF ACCOUNTING 293-95 (1958).

a capital project, a special "lump-sum" account, a revenue category or almost anything else. Only the last seven digits are reasonably unambiguous, and even here there are many exceptions. The net result is that one must simply know from experience what each of the 5,000 or more separate fourteen-digit accounts means. Since this is impossible, many items are charged to the wrong account, and even when the basic coding is done properly, reports are almost indecipherable.

This situation exists because city financial systems, whether automated or not, are usually based on accounting concepts which were developed for manual accounting and budgeting systems. In a manual system, all posting and reporting must be done by hand. To facilitate such reports, a series of "T-accounts" is usually set up, with each account representing individual objects of expenditure for expense accounts. Each journal entry is then posted to the appropriate T-account in the general ledger. The only summary reports easily available from such a system are the totals for each T-account.

Although somewhat technical, the solution to this problem is essential to the development of an effective financial information system. The key to the solution is a system of basic classifications which can categorize each dollar amount handled by the system according to a set of rigorously defined independent characteristics. Each budget, revenue, expense, or balance sheet transaction should have a set of independent codes which classifies the dollar amount associated with the transaction in many different ways. For example, an expenditure from the General Fund (*fund*) for office supplies (*object of expenditure*) for the prenatal care program (*activity*) for the Public Health Department (*organizational unit*) would receive independent codes for each of these attributes, plus, of course, other classifications as well. Using this type of scheme, it is possible to produce reports showing, for example, summaries of all expenditures for office supplies in the general fund, or all expenditures for the prenatal program, or all expenditures for the Public Health Department, or any combination of these. Not only is the rigidity of the traditional system avoided, but by making each code represent only one characteristic, the confusion and ambiguity of the kind of system which has troubled New York City can also be eliminated.

Reviewing the specific classifications necessary for a good financial system should help to clarify this general concept. The basic records of a city should be organized so that each dollar amount entered into either the budget or the accounting books is classified in at least the following ways:

(1) A basic *Account Type Classification* should distinguish among budgeted amounts, expenses (encumbrances, accrued expenditures and disbursements), revenues (accrued revenues and cash collected) and other balance sheet entries.

(2) *Organizational Unit* indicates the unit (such as department, division, bureau or section) responsible for the budget, expenditure or revenue.

(3) *Program or Activity* denotes the service or function for which the budget or expenditure is provided, or through which the revenue is collected.

(4) *Fund* indicates the accounting entity in whose balance sheet the transaction will be shown.<sup>26</sup>

(5) *Object of Expenditure* classifies each expenditure according to the thing purchased, such as supplies, equipment, personal services, postage, etc.

(6) *Revenue Source* indicates the source of each dollar collected by the city, regardless of how the dollar is to be spent.

These are, of course, only the basic classifications which should be present in any system. Many other classifications might be used. For example, a code might be included to distinguish direct from indirect costs. The local geographic area within a city affected by an expenditure might also be coded. Finally, where the city council has a formal appropriations process, the unit of appropriation in which each budget item is found might be independently coded.

A common reaction to suggestions that each of these classifications be independently coded for each municipal financial transaction is that the coding burden on clerks would be overwhelming. However, this need not be the case with a well designed computer-based system. First, not all codes are required in all cases. Tax collections will not be classified by object of expenditure, for example, just as postage stamp purchases will not be coded by revenue source. More importantly, many codes can be "inferred" through the use of computer-stored tables. This is particularly true with regard to higher-level reporting tables: if the lowest level organizational unit within an agency is coded, a table can be included in the computer system which will specify each higher-

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26. A fund is an accounting entity, and, usually, a legal entity, with resources, and can "do business" or have transactions with other fund entities within the municipality. A fund is also an accounting compartment with a whole group of self-balancing accounts (balance sheet and operating statement accounts). Records are kept by funds. . . . This means a series of balance sheets and other accounting statements for the municipality, rather than consolidated statements. L. MOAK & A. HILLHOUSE, *CONCEPTS AND PRACTICES IN LOCAL GOVERNMENT FINANCE* 338 (1975).

For an explanation of the various funds used in governmental accounting, see E. LYNN

level organization of which the lower-level organization is a part, so that the higher-level organizations need not be explicitly coded on each document. Codes can also be inferred by computer when one classification is uniquely associated with another. If a particular organizational unit always carries out a single program or activity, only the organization code needs to be entered on documents; the program code can be looked up in a table. Similarly, if a specific type of transaction affects only one line on the balance sheet, nothing but the fund code need be denoted.

As an example of how codes can be inferred by computer, consider a typical Fire Department (highest level organization), containing a Communications Division (intermediate level) and within it an Office of Radio Maintenance (lowest level). Furthermore, assume that the city's program structure includes a classification for "Indirect Support to Firefighting Activities," and that all of the work of the Office of Radio Maintenance falls within this program classification. In this case, only the code for the Office of Radio Maintenance need be entered on forms and other source documents to be read into the financial system. The program (Indirect Support to Firefighting Activities) and all higher-level organization classifications (Communications Divisions, Fire Department) can be looked up by the computer in tables and entered into the appropriate accounting records. When reports are prepared, dollar amounts can then be summarized by each of the inferred classifications, as well as by the basic classification (Office of Radio Maintenance) actually coded on the forms.

In order to design this kind of flexible information system, it is essential that each code used in a city's financial information system have a unique, consistent and unambiguous definition. If a single code is sometimes used to indicate an "organization" and other times a "program," as in the New York example discussed above, writing the computer programs necessary to sort out what is meant in the various cases becomes virtually impossible, and information obtained from the system becomes so ambiguous that it loses its value. Over time, the system will inevitably break down. In a sense, the rule is almost too obvious: codes in a financial system must mean what they are said to mean.

#### SPECIFIC PROBLEMS IN CITY FINANCIAL INFORMATION SYSTEMS

In addition to the general lack of well-integrated systems that

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& R. FREEMAN, *supra* note 16. Some of the problems which result from fund accounting are discussed in notes 35-41 *infra* and accompanying text.

are flexible enough to serve many functions, there are several other common weaknesses in local government financial information systems which prevent them from fulfilling their basic purposes. The following list highlights the steps which must be taken to alleviate the more important problems.

*Integrate budget and accounting systems.* A common failure of many local government financial information systems is the lack of integration between the budget and accounting systems. For example, the accounting system may be structured by expense objects within organizational units, with the budget stated in terms of programs or functions. This makes it extremely difficult to use the budget as a mechanism for control; an accounting system structured around organizational units often cannot separate out expenditures for programs which cut across organizational lines. Some cities even go so far as to record their budgets and their revenues and expenditures on different computers, using entirely different data processing systems. Under these circumstances, it may be impossible to obtain accurate reports showing the relationship between actual financial results and those projected in the budget at a level of detail sufficient to permit evaluation. Such lack of integration also makes it extremely difficult to measure progress during the course of the year and to make the necessary changes in planned or budgeted expenditures.

A similar problem arises where all segments of a government's financial information system do not follow a single method of financial reporting. The bases on which expenses and revenues are recognized in the budgeting system must be the same as those used in the accounting system. If expense budgets are prepared on an "obligational authority" basis, for example, whereby expenses are recognized at the point in time where a legal obligation arises (*e.g.*, when an order is placed with a vendor), the accounting system cannot base recognition of the expenditure on invoices received or on actual cash disbursements; otherwise, it will always appear that the city is spending money at a slower rate than it anticipated. Similar problems may arise on the revenue side of the system when the budget and accounting systems mix accrual and cash methods of accounting.

The most flagrant violation of basic accounting principles occurs when revenues are reported on an accrual basis and expenditures are only reported when cash is actually paid out. This technique tends to understate expenses and overstate revenues in such a way as to indicate a relatively strong fiscal position where in reality a sizeable deficit may

exist. Such a misleading mixture of financial reporting techniques was largely responsible for the favorable financial picture which allowed New York City to obtain large amounts of short-term debt during recent years despite its deteriorating fiscal position.<sup>27</sup>

The solution is clear: a city must have a single, integrated budget and accounting system, with one set of codes and one set of official financial reports on which all can agree. This is true even when separately elected officials share responsibility for a city's financial management. Such officials need not agree on policy matters, but there is no reason for them to disagree on basic financial facts and figures.

*Develop clear "Responsibility Center Budgets."* In order to stimulate efficiency, local governments must have access to fiscal information which is structured along organizational lines. The major work of any local government consists of carrying out well-defined tasks as efficiently as possible. Without the profit motive inherent in private business, it is essential that each manager in a government organization be given clear productivity objectives and financial targets, both for expenditures and for revenues. Every revenue source must be assigned to a responsible manager who should be held accountable if collections are behind schedule or below target. Likewise, individual managers must be held personally responsible for keeping expenditures within budgets and meeting workload objectives.

*Require explicit handling of intra-city purchases and sales.* Another area in which tightened accounting practices can help to eliminate inefficiencies in governmental operations involves intra-city purchases and sales. Very few cities properly charge managers for services they use from other parts of the city government. As a result, "overhead" agencies often have lives of their own, regardless of changes in the programs and organizations they were designed to support. Motor pools grow, data processing organizations obtain bigger computers, and the central garage increases its staff, regardless of the level of activity supported. These organizations are given separate budgets which are carried forward from year to year. If they are to be efficiently managed, such organizations must be required to "sell" their services to other city agencies on a competitive basis; the organization using the service should pay for it out of its own budget.<sup>28</sup> This will also give city

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27. See Kummerfeld, *Improving the Process for Local Spending Decisions: The New York City Experience*, 29 NAT'L TAX J. 272, 273 (1976).

28. The "Blue Book" discusses intra-city transactions, GOVERNMENTAL ACCOUNTING 70-73, as do the standard texts in the field of government accounting. See, e.g., E. LYNN & R. FREEMAN, *supra* note 16, at 530-76. But in each case the recommendation

agencies the opportunity to make a case for contracting work out to private firms when these can provide the same service more economically.

*Start with the "big picture."* From the viewpoint of the official with planning responsibilities, the only way to understand the financial operations of a complex city is to look first at overall summary data and then see how it breaks down in detail, *i.e.*, to look first at the forest and then at the trees. When a top manager receives a mass of computer output, it is almost certain that he will ignore it. Only if the overall total spending and revenues for major departments, activities and funds are presented first, with these numbers being successively broken down into increasingly finer detail, can operations be understood. Despite this seemingly obvious point, very few city financial systems provide the type of summary information necessary or the flexibility that is needed to break the overall picture down into its component units.

*Do not attempt analysis by computer.* A common objective of systems designers is to produce *all* of the evaluation and analysis reports needed by top city management. This is sheer folly. A financial system should be structured to provide timely and accurate basic data, which can then be used by qualified analysts. The evaluation of complex alternatives, the preparation of long-range projections and the estimation of the cost of program alternatives are functions that simply cannot be automated. Computers are tools for gathering and sorting information; they are not substitutes for human analytical abilities.

*Use general purpose software.* With the price of computer hardware continuing to decrease dramatically, there is no excuse for cities to become constrained by inflexible computer programs (software). Flexible and general purpose software requires more computer hardware capacity to operate, but hardware costs are a small and diminishing portion of the total cost of a city's financial system. Flexible software is less costly to maintain and much more susceptible to improvements. It is also more responsive to management needs.

#### THE IMPEDIMENTS OF STATE AND LOCAL LAWS

In addition to the various managerial purposes for which it must

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is that separate "Intragovernmental Service Funds" be set up to account for the activities of organizations which sell most of their output to other city organizations. The problem with this approach is that it fails to accommodate the large number of city organizations which sell only a small part of their output to other organizations. While it might be possible for such organizations to split their accounts among different funds, such an approach would inevitably be a managerial nightmare. I see no reason to require separate funds to account and budget properly for intra-city purchases and sales. Such cases can be handled perfectly well within a single fund.

normally provide, a local government's financial information system must also be capable of meeting a variety of legal requirements. One might presume that state and local laws would themselves encourage the development of systems which meet the criteria outlined above. Unfortunately, this is not always the case. Legislation affecting financial management and information is generally designed to serve only a narrow function—uniformity in governmental financial reporting and prevention of corruption. Preoccupation with these purposes often forces local governments to adopt unnecessarily rigid financial information systems, actually impeding efforts to obtain flexible systems with the capacity to satisfy the variety of needs discussed above.

In its most common form, this problem arises when frustrated state legislators attempt to deal with confusing financial reports from local governments, prepared on an inconsistent basis from city to city, by passing a law requiring that cities use a "standard" chart of accounts.<sup>29</sup> State laws may require that city budgets be structured in a particular way, or that financial reports conform to a predefined format.<sup>30</sup> In principle, none of this is harmful; it could even be helpful. But unfortunately, more often than not the law simply adds one more level of complexity to what the city must do, since the standards required are inadequate to meet the other information needs of the city. Overburdened and frustrated city budget directors, finance directors and data processing administrators frequently redesign their systems and procedures to meet legal requirements, letting other objectives fall by the wayside.

Recent experience in Seattle, Washington provides a useful example. During the past several years, Seattle has made a major effort to reform its financial management system, particularly the organization of its budget, by restructuring the budget along clean organization unit lines. This means that each of the city's managers can be held responsible for a specific portion of the city's budget; it is no longer possible to obscure who spent each dollar and whose budget is rising most rapidly.

Unfortunately, this improvement may have to be abandoned because of a conflict with a state law which requires local adherence to the State of Washington's Budgeting, Accounting, and Reporting System

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29. See, e.g., MICH. COMP. LAWS ANN. § 141.421 (1976).

30. See, e.g., IND. STAT. ANN. § 18-1-6-11 (1974) ("Each account shall be accompanied by a statement in detail in separate columns of the several appropriations, the amount drawn on each appropriation, the unpaid contracts charged against it, and the balance standing to the credit of the same"); WASH. REV. CODE ANN. § 35.33.111 (Supp. 1976) (state auditor is empowered "to make and install the forms and classifications required").

(BARS).<sup>31</sup> BARS, which is a set of standards developed by the state auditor, requires municipal budgets to be structured along program lines rather than organization lines.<sup>32</sup> Seattle's present system can provide annual reports in the format required by BARS; the reports can be derived from the city's organizational budget using translation tables and distribution formulae. Seattle's present system thus meets the needs of both program evaluation and managerial accountability. But this is apparently unacceptable to the state auditor, who insists that the budget itself be restructured along programmatic lines. Translation tables cannot be used to derive an organizational budget from the more general BARS format. Since the City of Seattle simply does not have the capability to develop the elaborate systems needed to maintain its budget and accounts in both programmatic and organizational terms, the state auditor's interpretation of BARS may destroy Seattle's ability to hold individual managers accountable for specific portions of the budget.

A similar problem has been encountered in San Francisco, where the city charter requires that the budget be structured by expense objects within each department. Again, officials have trouble enough meeting this legal requirement, so the city budget has no information on either organizational units within each department or programs carried out by the department.

An example from New York City further illustrates how legislative requirements, or what have been perceived as legislative requirements, can compromise managerial objectives in the budget process. New York, like many municipalities, budgets by line item within broad organizational or functional areas termed "units of appropriation." For personnel services, each line item corresponds in general to one of the City's 5,000 separate civil service titles. This practice forces managers trying to evaluate resource allocation to deal with distinctions that have more personnel than managerial significance (such as the distinction between "transcribing typist" and "stenographer," for example).

Prior to resolution of the controversial "group line" issue, the situation in New York City was even worse. New York's line item budget requirement stems from a provision in the City Charter which prohibits the use of any appropriation before an agency has filed a schedule with the comptroller and department of personnel fixing positions and salaries.<sup>33</sup> This provision was originally interpreted to mean

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31. See WASH. REV. CODE ANN. § 35.33.111 (Supp. 1976).

32. For a description of BARS, see the pamphlet published by the State Auditor of Washington, *Budgeting Accounting, Reporting System for Counties and Cities—A Top Management Oriented System*.

33. N.Y.C. CHARTER & ADMIN. CODE ANN., City Charter § 123(a) (1972):

not only that individual service titles had to be shown on the budget, but also that different salary grades for the same titles had to be treated as separate line items. Thus, for example, within a single social services appropriation in the city budget, there were often twenty separate line items for the civil service title "supervising caseworker." The salary differential between each of these line items was seldom more than \$50, and sometimes included only one or two authorized positions.

This interpretation of the charter had two harmful effects from a management standpoint. First, the number of line items in each appropriation was greatly expanded, making it even more difficult than necessary to figure out what really was going on. Second, budget management during the year was largely a flurry of posting minor personnel actions—merit increases, new hires, etc.—with substantive analysis taking a back seat. Eventually, the City was able to obtain a revised legal opinion permitting "group lines," with only one line item per civil service title, showing the minimum and maximum allowable salaries rather than each separate salary. Implementation of this reform has still met with much resistance, principally from clerks who feel that the reduced budget detail necessarily means reduced control.

Another problem arises in the many cities where state or local laws require that the source of funding be shown for individual activities within the city's budget. Thus, a particular activity may be shown as funded by state aid, or by federal aid, licenses and fees, or general tax revenues. The difficulty with such requirements is that these allocations of revenues to individual activities are usually arbitrary. State and federal aid reimbursements are rarely associated with a single category in a local government's budget. More commonly, a reimbursement program will cover portions of salaries and other costs which cut across organizational or programmatic lines. City-collected funds such as licenses, fees and taxes can be spent in any way the city desires and cannot logically be associated with any particular expenditure or category.

These requirements cause damage because they perpetuate misinformation which often leads to bad decisions. In attempting to reduce the budget, for example, a city executive might examine the budget, identify a particular account as being funded by "state funds," and exclude it from further consideration, focusing attention only on "city-

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Except as otherwise provided by law, no unit of appropriation shall be available for expenditure by any agency until a schedule fixing positions and salaries . . . within such unit of appropriation . . . shall have been approved by the mayor, copies of which schedule shall be filed by the director of the budget with the comptroller, the department of personnel and the affected agency.

funded" accounts. But the accounts shown as funded by "state funds" might well require indirect expenditure of city funds which could entail significant financial strain on the city.<sup>34</sup> Alternatively, it might be possible to reallocate the state funds to other activities, leaving state revenues unchanged while reducing total costs.

#### GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)

Another common but more general legal requirement which has been adopted by increasing numbers of cities and states is that municipal financial systems comply with "generally accepted accounting principles" (GAAP).<sup>35</sup> On the one hand, this requirement can be a tremendous help. In New York, for example, if the City had followed GAAP, it would not have mixed different bases of accounting in a misleading fashion,<sup>36</sup> its ever-growing deficits could not have been covered up year after year, and the present crisis might have been averted. Knowing that a city conforms to GAAP provides some degree of confidence that the city's financial statements reflect fiscal reality.

On the other hand, because of what the term "generally accepted accounting principles" is currently taken to mean for cities, GAAP can create almost as many problems as it solves. At present, a single publication, the so-called "blue book" or *Governmental Accounting, Auditing and Financial Reporting (GAAFR)*<sup>37</sup> is widely accepted as representing generally accepted accounting principles as applied to governments.<sup>38</sup> The National Council on Governmental Accounting currently has underway a major effort to revise and update GAAFR, so many of the current problems associated with its use may soon be eliminated. But in its present form, GAAFR has major weaknesses. Perhaps the most significant is its requirement that completely separate books be kept for each fund or accounting entity. Consolidated reports

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34. See Blaydon & Gilford, *supra* note 4, at 1064 n.28, citing Gramlich and Galper, *State and Local Fiscal Behavior and Federal Grant Policy*, 1973 BROOKINGS PAPERS ON ECONOMIC ACTIVITY 15: It has been estimated that the availability of state and federal cost-sharing programs induces additional expenditures at a rate of about 40 percent for revenue-sharing funds and as high as 90 percent for categorical funds.

35. See, e.g., MICH. COMP. LAWS ANN. § 141.427(1) (1976). Similarly, consider the effect of such statutes as OKLA. STAT. ANN. tit. 11, § 961.24 (1949), which requires that the city council designate a qualified public accountant to conduct an independent audit. This audit would be carried out in accordance with GAAP. See AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, *supra* note 24, at 8.

36. See GOVERNMENTAL ACCOUNTING 11 (Basis of Accounting).

37. GOVERNMENTAL ACCOUNTING. The NCGA, now called the National Council, was set up primarily through the efforts of the Municipal Finance Officers Association.

38. See, e.g., AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, *supra* note 24, at 8-9.

across funds are not only absent, they are *condemned*.<sup>39</sup> Admittedly, consolidating reports of various funds is a difficult process, just as it is difficult in commercial accounting to consolidate the financial reports of diverse and independent subsidiaries of complex corporations, such as conglomerates or large holding companies. But such consolidations are not impossible, and the failure to consolidate means that important financial transactions can often be hidden as "interfund" transactions.<sup>40</sup> New York City used this device to hide a considerable portion of its deficit.

Other major weaknesses in GAAFR include its failure to distinguish clearly between legally mandated reporting and reporting to the public, inadequate attention to the planning and management purposes of an accounting system, and finally, an almost total absence of standards for accounting for the most rapidly growing source of city revenue—federal grants. Until these problems are solved, use of GAAFR will remain a mixed blessing, and codifying its use through state and local laws will add unnecessary inflexibility to city financial management.<sup>41</sup>

Clearly, the easiest way to remove these legal impediments would be to change the laws from which they stem. This will be done only if the legal and accounting professions come to understand the shortcomings in many existing laws, undertake a nationwide effort to develop new standards, and push to have these standards enacted into law by state and local legislators. The federal government must also reform its procedures and suggest standards which will help solve these problems instead of exacerbating them, as many of the present federal standards do.

In the short run, widespread changes in laws cannot be expected. But cities can and should develop flexible financial information systems

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39. GOVERNMENTAL ACCOUNTING 111.

40. In arguing against consolidation, GAAFR offers the following distinction:

Unlike a private corporation where the parent company has unlimited control over its subsidiary companies and where the entire group of companies constitute one economic entity, a government does not have unlimited control and flexibility over all of its financial operations; each fund is a completely independent entity, and very frequently the governmental unit's officials are limited by law in respect to what they can do or change in fund fiscal affairs." *Id.*

In practice, the legal constraints on use of particular funds have little effect on municipal financial operations. Where a city cannot transfer resources from one fund to another, it may simply transfer the entire program to a fund where adequate resources exist. In short, cities retain a high degree of flexibility in their utilization of resources, and it is only through a consolidated statement that the relationship between a city's resource base and its programmatic commitments can be accurately portrayed.

41. For a similar set of recommendations concerning GAAFR, see R. COCKRILL, *et al.*, *FINANCIAL DISCLOSURE PRACTICES OF THE AMERICAN CITIES* (1976).

like those outlined above which will allow them to meet legal requirements without seriously compromising other objectives. This would provide a more immediate solution to the problem raised by ill-conceived legal requirements.

#### CONCLUSION: THE NEED FOR BROAD-BASED REFORM

Professional financial managers have a strong tendency to see financial systems as ends in themselves. As long as financial reports can be prepared in conformance with legal requirements, the financial system is thought to be adequate. But any financial system must be more than this if the public's needs are to be served. The system must provide the information necessary for elected representatives to reach reasonable decisions on the allocation of public resources. Furthermore, the system must stimulate productivity and efficiency in local government operations. All too often, these objectives are sacrificed in deference to legal and technical requirements. A city's books may balance to the penny in a technical sense, yet provide no useful information about the true state of the city's finances. New York is perhaps the outstanding example of such a situation, having "balanced" its books according to its own self-imposed financial policies and system while accumulating a true deficit of \$4 billion.

Fortunately, it is not necessary to sacrifice legal and technical objectives in order to attain managerial and public information objectives. Installing a good financial system which adequately meets both sets of objectives is no easy matter, but with careful conceptualization and the use of sophisticated data processing techniques it can be done. The individuals responsible for such a reform project must understand all key elements of the project—the needs of management, governmental accounting principles, federal reporting requirements, and state and local laws. In addition, they must know how to make use of sophisticated data processing techniques. Unfortunately, financial management reform efforts are frequently headed by individuals skilled in only one of these areas. PPBS was installed by experts in planning and program analysis, but the needs of the accountants and operating managers were often ignored. Data processing experts have often installed systems which are technically sophisticated, but which produce completely unusable computer-prepared reports. Accountants can install systems which balance precisely and meet all legal requirements, but which use unnecessarily cumbersome data processing techniques and fail to meet the needs of managers and planners. There is simply no way to avoid the need to deal simultaneously with all the needs to be served by a city's financial management system.

Legal changes can make a significant contribution toward the elimination of these problems. But achieving the necessary changes in state and local laws will not come easily. In the short run, the best hope is to work around existing laws, accepting the fact that certain financial reports will have to be produced merely to comply with legal requirements, even when these legal requirements have no substantive basis. In the long run, one can only hope that legislative bodies, responding to the leadership of the legal profession, will pass new laws which direct attention to the real financial problems faced by the cities, rather than focusing exclusively on technical and bureaucratic considerations at the expense of effective urban management.

