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ARTICLES

A Comparison of Governance of Publicly-Owned Mass Transit

by Neil Hamilton,* Bruce Feldhusen** and Heather Crisp

I. Introduction

DURING THE SUMMER of 1978, the authors conducted a survey of governmentally-controlled urban mass transit systems in the United States and Canada. The study focused on 17 systems in 7 States, and 10 systems in 3 Canadian Provinces, and examined the formal legal structure governing each system, including both their enabling legislation and administrative policies. This material was expanded upon and enriched through interviews with executive management in each system.¹ The methodology and results of the U.S. studies have been extensively reported in Governance of Public Enterprise: A Case Study of Urban Mass Transit,² and will not be repeated in detail herein. The Canadian data, collected primarily for comparative purposes, have not been published elsewhere, so a system-by-system summary appears in the Appendix.

The study arose out of an awareness of both the importance of Government enterprise in the economies of the United States and Canada and the limited scholarship on this phenomenon in the two countries. The term "Government enterprise" includes all production processes providing a good or a service which are effectively controlled, directly or indirectly, by a branch of the Government itself or by a body established by the Government to conduct the undertaking in the public interest.

Over the course of this century, Federal, State and Provincial, and

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¹ The financial support of the Canada-United States Law Institute during the summer of 1978 enabled us to visit the systems and conduct the interviews.

² N. Hamilton & P. Hamilton, Governance of Public Enterprise: A Case Study of Urban Mass Transit (1981).

local governments in the United States and Canada have created a variety of Government enterprises in the form of Government corporations, agencies, authorities, departments, and districts to produce diverse goods and services. Although the growth in the use of these entities has been gradual, their cumulative role in both economies is now substantial. For example, the U.S. Federal Government created 17 new Government corporations or Government-sponsored enterprises exhibiting varying degrees of Government control just in the period from 1960 to 1973. At the State and local levels, there are at least 6,000 local and regional authorities and 1,000 State and interstate authorities.³ Similarly, in Canada which has a longer history of Government involvement in the transportation industry, the number of Crown Corporations alone has risen from 33 in 1951, to 54 in 1977.⁴

Perhaps because the increase in the use of these entities has been gradual, and perhaps because government production of goods and services is something of an embarrassment to many economists,⁵ Government enterprises have received surprisingly little academic attention. There are two conceptually distinct, although functionally related, issues which require further scrutiny: why do Government enterprises exist, and how should they be designed to achieve their goals?

Surprisingly, there seems to be no coherent theory which satisfactorily explains why Government enterprises came into existence initially, nor why their numbers have steadily increased. It is beyond the scope of this article to consider the social and political consequences which flow from increased direct Government participation in the economy. Even with these aside, many important questions must be answered regarding the comparative efficiency of Government and private enterprise. For example, are there certain social goals or types of goals which we would expect to be better performed by Government enterprise than by private or regulated industry? Is Government enterprise the most efficient response to certain types of market imperfections? One would expect stronger and more fully documented affirmative responses to these and similar questions than are presently available to justify the expansion of the traditional Government role into markets which were once considered to be the exclusive domain of private enterprise.

The great diversity of institutional design in Government enterprises, even within a single industry such as urban mass transit, is also deserving of further study. Certainly there is great diversity within private enter-

³ See A. Walsh, The Public Business: The Politics and Practices of Government Corporations, 6, 353 (1978).

⁴ Crown Corporations are department, agency and proprietary corporations of the federal government which are permitted to keep their own accounts. Privy Council Office Crown Corporations: Direction, Control, Accountability 12-15 (1977).

⁵ Pashigan, Consequenes and Causes of Public Ownership of Urban Transit Facilities, 84 J. Pol. Econ. 1239, 1240 (Dec. 1976).

prise, but the term suggests at least some basic points of comparison. For example, the private share-offering company model is almost universal for large-scale private enterprise. Moreover, in response to experience, education, and competitive market pressures, similar private firms have developed fairly similar divisions of the policy formation and operational management functions.

There is no similar uniformity among Government enterprises even in the same industry. In Canada and the United States there are at least three general types or models of Government enterprise in common use: the company form, the Government department form, and the public corporation form. In the transit industry, the survey revealed great differences from system to system with regard to policy formation and the policy operation function distinctions. Government involvement itself creates considerable differences among Government enterprises, depending upon whether the focus of power is Federal, State or Provincial, local, or diffused among several Governments.

Urban mass transit was selected as the specific focus for the study for two reasons. First, mass transit by bus in the United States has shifted from primarily private ownership to almost total public ownership in less than 20 years. Among the 117 largest U.S. cities, only 10 had publicly-owned transit systems in 1949. By 1959, three more systems had become publicly-owned. However, from the late 1950's through the 1970's, mass transit revenues failed to keep pace with costs. This created a need for large subsidies if operations were to continue, and apparently there existed concomitant political pressure to make the transit system public. By 1969, 31 more systems were converted to the public sector; and, by 1979, an additional 62 systems were converted. Thus, as of 1979 private carriers have survived in only 11 of the 117 largest cities in the United States.

The second reason mass transit by bus was chosen for this study is the enormous and continuing commitment of public funds to mass transit subsidization. Since 1970, transit has been one of the most rapidly growing of all U.S. Federal programs. It seems likely that there will be a continuing commitment to subsidize this industry on both the State and Federal Government levels. The U.S. Senate, for example, approved a bill in 1980 to provide for \$14 billion for capital improvements and \$9.5 billion in operating subsidies to urban transit systems over the next five years.* Even the Reagan Administration seems committed to some capital subsidies.* Among the States, commitment to transit subsidies remains

[•] United States Technical Assistance Administration, Some Problems in the Organization and Administration of Public Enterprises in the Industrial Field 5 (1954); U.N. Doc. St/TAA/M/7 (1954)[hereinafter cited as U.N. Memo].

⁷ N. Hamilton and P. Hamilton, supra note 2, at 4.

⁸ S. 2720, 96th Cong., 2d Sess., 126 Cong. Rec. 8143, 8174 (daily ed. June 25, 1980).

[•] Hearings Before the Subcomm. on the Department of Transportation and Related Agencies Appropriations for 1982 of the House Comm. on Appropriations, 97th Cong., 1st Sess. 526 (1981)(statement of Arthur Teele).

high. For example, the Minnesota Legislature recently authorized significant transit operating subsidies.¹⁰

The Canadian systems were chosen in order to compare the Canadian experience with the findings in the earlier U.S. study. In most areas, public ownership of mass transit systems has had a much longer history than in the United States; the Toronto Transit System has been publically owned since 1920, the London Transit System since 1951, and the Hamilton Street Railway Company since 1960. Increased public spending is also characteristic of the Canadian experience. While most of the systems which were studies operated at a profit in the 1960's and early 1970's, more recently they have become reliant on public subsidies.¹¹

With the selection of urban mass transit as the industry for study, this article focuses upon the problem of institutional design for Government enterprises providing mass transit services, and attempts to develop an ideal model of institutional design for the industry. In any Government enterprise, including one in urban mass transit, institutional design and goal achievement are importantly and inextricably related to one another.12 It follows that meaningful comparisons between private and Government enterprises are impossible without first specifying what institutional structure the Government enterprise will adopt. Actual performance comparisons of Government and private enterprises in similar fields will be inconclusive if one is comparing a standard model of a private enterprise with a Government enterprise that might easily improve performance with a different institutional form. Thus, this study of institutional form in the transit industry in the United States and Canada should eventually assist in answering the other basic question: Is government enterprise, properly designed, a preferable alternative to private enterprise alternatives in the transit industry? The approach taken here may also influence the analysis of the same questions in other industries.

A few precautionary notes are in order. In the absence of previous research, no basis exists for the formulating and formal testing of hypotheses. The authors therefore seek to present information concerning the legal structure, policy formulation, and evaluation of management in the systems selected in a structured format. At this stage, intuition and inductive reasoning play major roles in the critical analysis of these issues. The article and its conclusions are therefore offered for constructive debate toward the formulation of an optimal model of governance for government enterprise in the mass transit industry.

¹⁰ Act of May 29, 1981, ch. 363, §55, 1981 Minn. Sess. Law Serv. 2054 (West).

¹¹ Relevant data are in the Canada Year Book, published by Statistics Canada.

¹² U.N. Memo, supra note 5, at 17; A. Walsh, supra note 3, at 10, 202; Roberts, An Evolutionary and Institutional View of the Behavior of Public and Private Companies, 65 Am. Econ. Rev. 415, 415-16 (1975); Seidman, The Government Corporation: Organization and Controls, 14 Pub. Ad. Rev. 183, 185 (Summer 1954).

The body of the article is divided into three sections. In Section II which follows immediately below we draw upon the theoretical literature and observations from the case studies to develop a general model of the government enterprise providing urban mass transit service. In Section III we present the findings of the case studies, noting the differences within and between the systems in each country, and compare our findings to the general model developed earlier. In Section IV we draw from the observations made earlier in the paper, and attempt to illustrate how a system could be designed which would correspond closely to the general model.

II. A MODEL FOR GOVERNMENT ENTERPRISE PROVIDING URBAN MASS TRANSIT SERVICES

A. The Concept of Welfare Maximization

The following general model of an "ideal" legal structure for an urban mass transit system is based both on observations from the case studies and the theoretical literature. Economics gives an uncontroversial starting point for our inquiry; that is, it suggests that the ideal legal structure is one which maximizes the welfare of all people affected by the system.

In practice, welfare maximization in a market economy is achieved by creating conditions for Pareto optimality provided certain income distribution constraints are met. A Pareto optimal state is defined as a state where no one can be made better off without making someone else worse off, where better and worse are determined by the affected parties.¹³ When a Pareto optimal state is reached, all the options to create better conditions for someone without harming someone else have been expended. At this point the society must, by definition, create worse conditions for at least one person if there is a change in the economic state. Nearly all people agree that a person or group should be made better off (in their own opinion) if it can be done without harming someone else.

The Pareto optimal criteria stand as a very uncontroversial social goal based on a nearly universally held value judgment. It is the taking of all gains when there is no accompanying loss. One should note, however, that Pareto optimality says nothing about how an economic "pie" is to be divided. Clearly, once Pareto optimality is established, any rearrangement of circumstances makes someone worse off. If such a change is to be considered, the value of this change must now be decided with a much more controversial value judgment which will determine if one person's or group's gain is considered to outweigh the others' loss. In practice, these more controversial value judgments concerning income distribution are embodied in legislatively determined constraints. The constraints have

¹³ See J. Hirshleifer, Price Theory and Applications 523-24, 548 (2d ed. 1980).

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taken many forms among which, for example, are the use of tax revenues to provide welfare payments, or the cross-subsidization which occurs when lifeline rates are imposed on utility taxpayers.

The following discussion principally concerns itself with the collective choices which benefit all members of a community. The paper concerns moves from a non-Pareto state to a Pareto state. Because the theoretical literature is at such an early stage of development, the article does not directly address the optimal mechanism of collective choice for decisions involving choices between Pareto states involving redistribution of income. However, the leading candidates to resolve such redistributive decisions may include majority rule, and some of the suggestions regarding improvements in voting to move to a Pareto optimal state may also improve legislative majority rule decisions regarding the redistribution of income. It

Since Pareto optimality, subject to a legislatively determined distribution of income, is the mode of welfare maximization that is practicable, the legal structure and policies of transit should be directed toward this end. ¹⁶ But how is Pareto optimalty to be incorporated into transit structure? There are two operational conditions that must be fulfilled: allocative efficiency and the production of goods at lowest cost.

The first condition needed to establish Pareto optimality is called allocative efficiency. This is a difficult concept that will not be elaborated upon at great length here. Briefly, an individual pursues only those actions in which the perceived benefits exceed the perceived cost.¹⁷ If each person experiences a cost to himself for his actions which is the same as the cost to society, then by normal decision making only those actions with net gains to society will be undertaken. Those actions which result in costs to society greater than benefits will be avoided, since the decisionmaker sees a personal cost greater than the personal benefit.

For consumers and producers, this condition is generally taken to be met when the price of a good equals its marginal cost, perfectly competitive markets being assumed. Under perfectly competitive conditions, the price which consumers are willing to pay shows the resource sacrifice that the consumers are willing to make to obtain one more unit of a good, and the marginal cost to the producer is the incremental cost that society must incur to have an additional unit produced. Social welfare is said to

¹⁴ D. MUELLER, PUBLIC CHOICE 270 (1979).

¹⁵ Id. at 265-66.

¹⁶ See P. Layard and A. Walters, Microeconomic Theory 50 (1978).

¹⁷ "Benefits" are defined in the individual's mind, and can include altruistic feelings. See D. MUELLER, supra note 14, at 245; Wolf, A Theory of Non-Market Failure: Framework for Implementation Analysis, 22 J.L. & Econ. 197, 111 (April 1979).

¹⁸ See E. Ferguson and J. Gould, Microeconomic Theory 456 (4th ed. 1975); P. Layard and A. Walters, supra note 16, at 14-15. Marginal cost is the addition to total cost of a firm attributable to the addition of one unit of output. E. Ferguson and J. Gould at 193. Perfect competition is defined in Ferguson and Gould at page 225.

be at a maximum when the resource sacrifice which consumers are willing to make exactly equals the resource sacrifice that society must make to secure an additional unit of output.¹⁹

Application of the price-equals-marginal-cost criterion may not result in net gains when there is a market failure and perfect market assumptions are not met.²⁰ Market failures lead to divergence between the marginal private costs paid by a private firm for the production of an additional unit and the marginal social costs or the resource cost to society of that incremental unit.²¹

In the case of bus transit, there are a number of reasons to question the perfect market assumption. For example, markets for the supply of the major inputs to transit, like unionized labor, are not perfectly competitive. The market for bus transit itself demonstrates significant market failures in the form of externalities,²² increasing returns to scale²³ and the public good nature of transit.²⁴ A solution to the optimal pricing of bus transit that would comprehend these distortions and establish conditions for allocative efficiency is, practically speaking, extremely unlikely.

Even though market distortions may prevent a rigorous solution for consumers and producers to allocative efficiency in bus transit, the original concept that each decisionmaker should be confronted with the marginal social cost of his or her actions is useful in analyzing both governmental efforts to establish conditions for efficient allocation in the presence of market failure and legislatively determined constraints that have income redistribution effects.²⁵ The question is whether a political decision maker can be confronted with the marginal social cost of his or her action in making these determinations. Clearly, given the magnitude of the marginal social costs of many allocational efficiency measures responding to market failure and legislatively determined constraints, the

¹⁹ E. FERGUSON AND J. GOULD, supra note 18, at 472.

²⁰ Lipsey and Lancaster originally demonstrated that very little can be said about the direction or magnitude of secondary departures from optimum conditions made necessary by the original nonfulfillment of one of the conditions of Pareto optimality. Lipsey and Lancaster, *The General Theory of Second Best*, 24 Rev. Econ. Stud. 11, 11-12 (1956). More simply, the theory states that "if one of the standard efficiency conditions cannot be satisfied, the other efficiency conditions are no longer desirable." P. LAYARD AND A. WALTERS, supra note 16, at 181.

²¹ See E. Ferguson and J. Gould, supra note 18, at 473 and the definition of social cost at 180

²² For a discussion of externalities in bus transit, see N. Hamilton & P. Hamilton, supra note 2, ch.4 at 61.

²³ For a discussion of returns to scale in the bus transit industry, see N. Hamilton & P. Hamilton, supra note 2, ch.4 at 61.

²⁴ For a discussion of the public good nature of bus transit, see N. Hamilton & P. Hamilton, supra note 2, ch.4 at 61.

²⁵ 1 A. Kahn, The Economics of Regulation: Principles and Institutions 70 (1970). Kahn points out that even though things elsewhere in the economy are not organized optimally, policy supported by careful analysis and common sense may plausibly be expected to yield improvements. There is no substitute for judgment.

political policymaker cannot be directly assessed. However, the impact of a policymaker's decision should in some way affect his or her personal gains and losses. That is to say, if an individual policymaker makes a decision that creates net social gains, that individual should experience some personal gain. The same should hold true for losses. The reasons are the same as before: every individual must face individual consequences for his or her actions that reflect the consequences to society. If this is true, the individual will only make decisions that are beneficial to society.

Unfortunately, since social choice theory is not very advanced, the means to achieve this are not well specified. The key is the development of non-market mechanisms for revealing individual preferences in these situations. However, as one commentator points out, most economists admit that theory has nothing with which to instruct the choice of decision-making institutions with respect to joint impact goods. Absent a theoretically rigorous model of social choice, the practical question of confronting political policymakers with the social impacts of their decisions remains. The voting process provides a very imperfect means of accomplishing this. Buchanan summarizes, "The electoral process offers, at best, a crude disciplinary check on those who depart too much from constituency preferences. Elections are held only at periodic intervals. Information is poor, and citizens have relatively little private interest in securing more."

There are potentially many improvements that could be made in confronting politicians with the social impacts of their decisions. Since social choice theory is so imprecise, this is an area for future investigation. At this primitive stage, it is possible to put forward suggestions with guarded confidence that their realization will contribute to the welfare of those affected by a transit system. Buchanan's statement, for example, suggests one simple improvement. The very heart of the issue seems to be information to all actors in government enterprise, including voters, legislators, regulators, and management. As pointed out by Friedman, "Those who control and direct a governmental endeavor presumably base their decisions on information. To be answerable is to generate and to supply information. To hold others accountable requires that information be available as a basic foundation for judgments."²⁸

Because of the information and transaction costs of the voting mechanism, the best that can be accomplished is not voter sovereignty, but voter control through the exercise of consent.²⁹ Such consent must be rea-

²⁶ A. Schmid, Property, Power and Public Choice 230-33 (1978). See P. Layard and A. Walters, supra note 16, at 44; D. Mueller, supra note 14, at 5, 270.

²⁷ J. Buchanan, Why Does Government Grow? in Budgests and Bureaucrats: The Source of Government Growth 13 (T. Borchering ed. 1977). See J. Hirshleifer, supra note 13, at 469, (other imperfections of voring models).

²⁸ B. FRIEDMAN, THE QUEST FOR ACCOUNTABILITY 2 (1973); U.N. Memo, supra note 6, at 17, 57.

²⁰ P. Steiner, Public Expenditure Budgeting, in The Economics of Public Finance

sonably informed. Voting with information to all actors provides a reward-penalty mechanism by which policymakers can at least be made more cognizant of the social gains or losses attributable to their decisions. There will be a closer correlation between creating too large a net social loss and the personal penalty of not being re-elected. The same increased correlation will be seen between large social gains and the personal gain of being re-elected or possibly advancing in elected position. It cannot be overemphasized, however, that voting even with improved information flow is an inaccurate device at best for confronting a political decision-maker with the marginal social cost of his action.³⁰

The second condition needed for Pareto optimality is the production of goods at lowest cost.³¹ The problem is that no one knows the method or methods which will produce at lowest cost, since no one has perfect knowledge of all available production or management techniques. In addition, there are production and management innovations that will lower costs but are as yet undiscovered. The best that can be done here is to institutionalize procedures which encourage research and innovation, and which penalize management which fails to improve upon the production process.

Since no one person or group knows a priori the most effective method of production, there must exist a number of persons or groups offering alternative methods of production, available for evaluation by both board and management. Second, to remove inefficient methods of production, there must be a mechanism for elimination. This can be done by the elimination of producers by some self-acting constraint. For example, firms that cannot maintain a normal profit in a competitive market eventually stop producing, whereas more efficient firms, those having normal or greater than normal profits, can continue production. The elimination of inefficient producers also can be achieved through elimination by some nonautomatic mechanism. For example, this could be accomplished by an agency that has evaluated the production process by using a performance indicator. Finally, there must exist some source of innovation in the production processes. Since innovation depends on new viewpoints on how things go together, this variation can be achieved at least in part by the introduction of new managements. There also will be variation in production processes due to the remaining managements who are now faced with the strong motivating force of the survival of the fittest.32 When new

^{254, 304 (1974).}

³⁰ See E. Browning and J. Browning, Public Finance and the Price System (1979)(intermediate level discussion of public choice theory).

³¹ This is also called production efficiency or technical efficiency. See Leibenstein, Allocative Efficiency versus "X-Efficiency", 56 Am. Econ. Rev. 392 (1966); Posner, Natural Monopoly and its Regulation, 21 STAN. L. Rev. 548, 573 (1969). All these terms refer to the best possible use of a firm's resources within the existing state of technology.

³² Cf. W. Shepherd, The Treatment of Market Power: Antitrust, Regulation, and Public Enterprise 202-03 (1975) (discussion of the role of takeover in stimulating manage-

variations of production arise, the process of selection and further innovation should begin again.

Creating these conditions for lowest cost production is obviously a desirable goal for the legal structure of a transit system. The legal structure itself, rather than any further policy flowing from it, will then automatically ensure lowest cost production.³³ A structural means to obtain the necessary elimination of inefficient producers and variation in production processes is discussed later in the article.

B. The Definitions of Policy and the Production Process

A short review of the previous section would be useful. In the presence of market failure in the bus mass transit market, government may undertake measures to remedy the market failures and establish conditions for allocative efficiency. In making these determinations, the decision maker should be confronted with the marginal social cost of his actions. Marginal social costs are in turn a function of the individual preferences of those in the community. As previously indicated, the social choice literature discussing nonmarket mechanisms for revealing individual preference in these situations is not well developed. Voting with improved information flow may to some degree be a mechanism through which a political policymaker is confronted with the marginal social cost of his action. To achieve a Pareto preferred position, the transit services which are the subject of the allocative efficiency policies adopted should also be produced at lowest cost.

The preceding discussion makes reference to both the policies addressing the allocative efficiency issue and the production process without providing any focused definition of these terms.³⁴ These definitions are provided below.

Policy is defined as a course or method of action selected to guide and determine present and future operational or managerial decisions. These operational decisions constitute the process of production of transit service. The policies that guide a system in large part determine the system's impact on the area it serves. Policy can be directly stated through a declaration of purposes in legislation creating or affecting the enterprise. Policy can also be stated by agencies, the directives of which are binding on the government enterprise.

For increased clarity, policy can be organized into four categories that will be delineated and discussed here for reference. Policy is often stated at such a high degree of generality that no one knows how to make

ment efficiency in private firms). In addition to the use of "sticks" for motivation of management, one could also use "carrots."

^{33 2} A. Kahn, The Economics of Regulation: Principles and Institutions 328-29 (1971).

³⁴ These definitions of policy and the production process may be used also to assist in analyzing determinations relating to income redistribution.

the policy operational without more discussion. For example, a system may be directed to provide adequate and reliable transit service to meet the community's needs. This type of ambiguous goal that provides no guidance to management without additional elaboration will be referred to as general policy.

Policy is also expressed in very specific terms as a level or constraint with no flexibility in implementation. For example, systems have been directed to have a load factor on local service at peak hours of not more than 1.33 passengers per seat. Statements of policy that include specific steps of implementation and offer no managerial flexibility will be referred to as *stipulations*.

It is quite questionable whether stipulations that dictate production decisions are desired when achieving social goals. By the definition of stipulation there is an implication that the stipulation is the best and only method of attaining the social goals. It is a matter of experience, however, that a "best" method is generally not the best unless there is an explicit and formal proof of the superiority of that method. More often, some agent with better experience of the matters at hand will come along and discover a new "best" method. It is for this reason that stipulations should be scrutinized for possible replacement by operating objectives as defined below. The latter allows for creation of new approaches to a problem by the agents with the most experience, that is, the transit managers.

Frequently, policies direct management behavior by setting absolute minimum and obvious standards of performance. For example, balanced budget constraints are often imposed, and many systems are regularly audited to ensure the integrity of general financial reporting. Because the nonfulfillment of these types of policy indicates absurdly poor performance, these policies will be labeled constraints of the absurd.

Finally, policy can be put into an objective form that directly guides management action, but allows for management expertise to choose the optimal strategy to reach the objective. For example, the main priority of a system may be to maximize passenger miles. This is the type of more unambiguous policy that leaves flexibility in operational implementation; it will be called an operating objective.³⁵

The discussion above indicates the various types of policy. It remains to define the difference between policy and the production process or day to day management. In much of the British literature in government enterprise, it is simply assumed that a fine line can be drawn between policy and day to day management.³⁶ Even though the dichotomy between day to day operations and policy determination is well recognized, it is not enough to say only that broad policy decisions must be distinguished

³⁵ See J. Pressmand and A. Wildavsky, Implementation: How Great Expectations in Washington Were Dashed in Oakland at xiv-xv (1973); Granger, *The Hierarchy of Objections*, 42 Harv. Bus. Rev. 63, 66 (May 1964); Wolf, supra note 17, at 116-17.

³⁶ W. Robson, Nationalized Industry and Public Ownership 139, 141-42 (1960).

from transit operational decisions. With no clear distinction between the two, supervisory agencies tend to encroach on the details of management.³⁷

Realistically, of course, there is no bright line separating policy from operations. The two concepts merely are part of a spectrum of decision-making which ranges from the most general questions of what service is to be produced and for whom, to specific questions concerning marketing or production. However, in order to reduce both the inherent ambiguity in the concepts and the risk of interference in operations by policymakers, a clear definition of the areas of management authority should be delineated.

A possible approach to implementing this proposal would be to give management sole control over all decisions that require detailed knowledge of the production function and market characteristics. Dajani and Gilbert note that transit efficiency is largely in control of operating management and is governed by the technical relationships between inputs and outputs.³⁸ This would include operational components such as maintenance, routing/scheduling, service characteristics, personnel matters, labor relations, and promotional activity. These are essentially business decisions in the ordinary course in the context of the private corporate governance model.³⁹

This division of responsibilities between the transit corporation board and management clarifies to some degree the role of management and the role of the board in the regulatory process. A simpler, more understandable structure should reduce information costs incurred both by the board in monitoring management and by the community in monitoring the board.

Policymakers should monitor decisions in the ordinary course on a spot check basis, asking whether the process by which such decisions are made is sound. As to extraordinary business decisions, like substantial increases in capacity, or the recognition of a union, the policymakers should have approval power. Decisions involving substantial changes in the legal structure of the corporation should be referred to the community for its approval.

C. The Sources of Policy

By definition of a government enterprise, a substantial degree of government control of policy is inevitable. The control of policy can be exercised through legislation itself (for example by stating purposes in a system's enabling legislation) as well as through numerous agencies whose

³⁷ See N. Hamilton & P. Hamilton, supra note 2, at 110.

³⁸ See Dajani and Gilbert, Measuring the Performance of Transit System, 4 Transp. Plan. & Tech. 97, 100 (1978).

³⁹ For discussion on labor negotiations under contract management, see N. Hamilton & P. Hamilton, supra note 2, at 111-13.

regulatory or fund granting power affect public transit directly or indirectly. This policy control can emanate from the federal, state/provincial, and/or local government level.

In the United States, examples of agencies at the federal level which affect transit policy include the Urban Mass Transportation Administration of the Department of Transportation, the Department of Health and Human Services, and the Department of Labor.⁴⁰ At the state level, frequently the state department of transportation plays a role in making transit policy. At the local level, both the local government, and, if one has been created, the transit authority itself are involved in formulating policy.

In Canada, responsibility for policy definition is also distributed among several levels of government, although the federal government plays little or no role in the regulation of urban bus mass transit. Instead, control is diffused among the Provincial Ministries of Transportation, the regional governments if any, the municipal government, and the Commission itself.

The role of federal and state/provincial government in defining policy should be relatively modest. Preferably, the principal role of these governments should be to ascertain whether the legal structure adopted by transit systems adequately provides for both the community preferences in policies and the competitive pressures in transit management to achieve those policies at the lowest cost. The federal and state/provincial role will then principally in providing bloc grant subsidies and technical assistance to transit systems as needed.41 There may be some policy issues, like energy conservation or the prevention of racially discriminatory practices, which are properly of concern to higher levels of government. 42 However, if transit policy in these limited areas is to be dictated by federal or state/provincial governments, then it should be restricted to broad statements of purpose and direction, earlier called general policy, leaving the articulation of operating objectives to local policymakers. In particular, federal and state/provincial government should avoid the imposition of stipulations on transit system.

There are a number of arguments, both theoretical and practical, which strongly support this division in policymaking responsibilities. A brief analysis of bounded rationality and information cost will assist in laying the foundation for discussion of these supporting arguments.

No enterprise of any size, whether private or government, can be op-

⁴⁰ Urban Mass Transportation Act of 1973, § 2, 29 U.S.C. § 794 (1973); Urban Mass Transportation Act of 1964, § 2, 49 U.S.C. § 1601 (1964); Urban Mass Transportation Act of 1964, § 13(c), 49 U.S.C. § 1609(c)(1964).

⁴¹ See N. Hamilton & P. Hamilton, supra note 2, at 42.

⁴² One proper area of federal concern, for example, would be to monitor compliance with the Civil Rights Act to prevent material differences in quality of service to minorities. See Wall St. J., Aug. 16, 1978 at 32, col.4.

erated so that all decisions are made by those with direct legal responsibility to shareholders or to voters. The rationality of decisionmakers is bounded; that is, no one individual can possibly analyze and evaluate carefully all decisions that must be made daily in any large enterprise.⁴⁸

It also seems clear that in everyday life there is an opportunity cost to the gaining of information; this is called information cost. It is evident that perfect information does not exist. No one knows a priori how to attain transit policies at an absolute minimum cost. However, it is plausible to assume that the closer a decisionmaker is to the market, the lower the information costs of the data necessary for a decision. The precise relationship of information costs and bureaucratic structure will depend on the characteristics of the industry and the regulatory mechanism utilized, but, in general, decisions made further from the market will suffer from informational poverty.⁴⁴

It also seems pausible to assume that the closer a decisionmaker is to the market (all other things being equal), the more responsive to changing market conditions the decisionmaker will be. Decisions made further from the market suffer from response lag. It is axiomatic that business conditions change continually and rapidly and that both informational poverty and response lag lead to lost opportunities and higher costs.⁴⁵

Regulatory intervention that requires a specified method of compliance without flexibility to recognize differing circumstances involves high degrees of informational poverty and response lag and leads to significantly higher costs. This has been referred to as a stipulation. Regulation that requires continuous monitoring or frequently changes requirements also has a high incremental cost.⁴⁶

Let us now see what information costs and bounded rationality imply in terms of transit policy. Our earlier discussion stated that the purpose of the legal structure of transit is to maximize the welfare of the people affected by the system. Since the impact of transit decisions is almost entirely local, the people most affected are the residents of the region served by each system. The primary problems encountered in urban transportation occur in the movement of passengers during peak hours.

⁴³ R. Schmalensee, The Control of Natural Monoplies 15 (1979).

⁴⁴ See Eckert, On the Incentives of Regulators: The Case of Taxicabs, 14 Pub. Choice 83, 87 (1973); Jordan, Producer Protection, Prior Market Structure and the Effects of Government Regulation, 15 J.L. Econ. 151, 174 (1972); Shepsle, Official Errors and Official Liability, 42 L. & Contemp. Prob. 35, 38 (Winter 1978)(Shepsle notes that "because of the information loss that accompanies the transmission of information and judgments from lower levels of the hierarchy to higher levels, the penultimate basis of a decision may be misleading at best and erroneous at worst"). See also W. Baumol, Welfare Economics and the Theory of the State 159-60 (1952).

⁴⁵ See S. Goldbert and H. Seidman, The Government Corporation: Elements of a Model Charter 7-8 (1953); J. Thurston, Government Proprietary Corporations in the English Speaking Countries 7 (1937).

⁴⁶ ARTHUR ANDERSEN AND CO., EXECUTIVE SUMMARY, COST OF GOVERNMENT REGULATION STUDY 19 (1979).

Congestion, pollution, and patterns of urban development are all local concerns. Energy consumption is a national concern, but will best be abated by a transit system responsive to local needs.⁴⁷ Policy should, above all, reflect the preferences of this community.

Transit planning and policymaking by centralized government agencies will tend to ignore local preferences because of the combination of attenuated voter pressure and the informational povery poverty and bounded rationality of remote decision makers. Moreover policies formulated at federal and state/provincial levels will tend to ignore intersystem and dynamic variations. One commentator notes that "to centralize adds to costs and sometimes detracts from the quality of the decision itself. Thus, the more that has to be decided at the center of a large organization, the greater is the delay and the remoteness (and perhaps unclarity of vision) and the more likely it is that the decision will be taken . . . by precedent." He concludes that a real optimum must involve flexibility, local knowledge, and avoidance of bureaucratic structures. 50

Decentralization of policymaking to local levels has the additional benefit of causing more information about the costs of government activities to be revealed to consumer voters.⁵¹ Both proximity to consumer voters and clarity of lines of responsibility will contribute to this result. With regard to the latter, Friedman notes, "Especially with respect to transactions between and among governments, understandings are mixed and imprecise regarding the location and limits of responsibility and authority. While they remain mixed and obscure, constituencies will find it extremely difficult to hold their governmental entities accountable."⁵²

It is predictable that the mere existence of multiple levels of policy determination will obfuscate lines of responsibility, increase information costs and decrease information flow, and cause the transaction costs that all political actors, including voters, will incur in trying to control an organization. The organization thus will confront relatively less restrictive external limitations.⁵³

Other problems can be anticipated from multilevel policy formation.

⁴⁷ Congressional Budget Office, Urban Mass Transportation: Options for Federal Assistance 13-15 (1977).

⁴⁸ See N. Hamilton & P. Hamilton, supra note 2 at 35-36. For example, it is not at all clear that the five percent federal government subsidy funds mandated for the elderly and handicapped is optimal when, as one manager pointed out, some systems, such as Champaign-Urbana, face a handicapped population of seven to eight percent of the total populations, while others, such as St. Louis, face three percent. For the five percent regulation, see 49 C.F.R. app. § 613.204 (1980). There should be variation in the policy to allow for variation in the system.

⁴⁹ A. Nove, Efficiency Criteria for Nationalized Industries 141-42 (1973).

⁵⁰ Id. at 139.

⁸¹ Auster, Private Markets in Public Good (or Qualities), 91 Q.J. Econ. 419, 427 (Aug. 1977).

⁵² B. Friedman, supra note 28, at 8, 13.

⁵³ Roberts, supra note 12, at 423.

The involvement of multiple governments with different policy interests and changing budgetary resources creates conflict and uncertainty for a transit system when both policy and production planning depend upon political vagaries at several levels. Long-run opportunities will thus be foreclosed with consequent increases in transit costs.⁵⁴

Finally, decisions from federal and state/provincial levels of government are often incompatible with basic notions of efficient policymaking, which require both that policymakers receive accurate feedback from all those affected by a system and that conflicting political interests receive the same relative weights in all decisions. In actuality, interest groups generally concentrate their attention on a particular agency but many others, whose interests are affected by a system, may be unorganized and wield little or no political pressure. The influence of organized interest groups seems to be relatively stronger as the policymaking agency is further removed from the local transit systems area. The result is that federal and state/provincial policymakers receive inaccurate and unbalanced signals which often bias policy in favor of interest groups.

D. Legal Structure at the Local Level.

The above discussion suggests a modest role for federal and state/provincial government in the formulation of policy. Policy should principally seek to maximize the welfare of the local community affected by the system. Consider how the legal structure of the transit system can accurately reflect the preferences of the residents served by each system. Since mass transit policy is just one part of urban transportation policy, which in turn is part of urban development generally, the traditional view has been "for control over the provision of all or most public services to be centralized in a single jurisdiction of regional scope." Under this view, a properly defined metropolitan area is seen as a sort of "little economy," and transit policy is to flow from the transportation component of the overall regional development plan. The regional development plan, by this view, is to be formulated by policymakers answerable to the regional community. A central forum would facilitate interaction of policy participants and lead to a coordinated set of policies. The regional community affected by policymakers and lead to a coordinated set of policies.

What are the principal features of this entity which will first, define

⁵⁴ For a discussion of these problems in the case studies See N. Hamilton & P. Hamilton, supra note 2, at 33.

⁸⁶ See N. Hamilton & P. Hamilton, supra note 2, at 34; R. Schmalensee, supra note 43, at 16.

⁵⁶ Warren, A Municipal Services Market Model of Metropolitan Organizations, 30 J. Am. Inst. Planners, 193-94 (1964).

⁸⁷ T. Kuhn, Public Enterprise Economics and Transport Problems 40 (1962).

⁵⁸ This is in part what the Metropolitan Planning Organization mandated by the Urban Mass Transportation Administration was intended to do. See, N. Hamilton & P. Hamilton, supra note 2, at 1.

transit policy and operating objectives; second, perform the objectives; and third, monitor and evaluate the performance of the objectives? The theoretical literature, primarily of European origin, defines two principal approaches to the design of a legal structure for a government enterprise. One approach is for policy, objectives, and operations to be undertaken directly by government in the form of a government department proper or a subdivision of a government department.⁵⁹

Under this legal structure, direct responsibility for all matters devolves on the director of the department and ultimately on the chief executive of the government. Direct government control of operations is exercised by executive order and legislative review. Personnel are usually subject to civil service regulation. The enterprise is financed by annual appropriations and is subject to the budget, accounting, and audit controls applicable to other government activities. The enterprise frequently possesses the sovereign immunity of the state.⁶⁰

A second more recent approach is to create a semi-autonomous legal entity with a separate board sharing responsibility for policymaking with the creator government. This semi-autonomous entity can be established either in the legal form of a private company or as a public corporation.⁶¹

With a private company form, the enterprise is registered as a limited liability company under the corporation laws applicable to private firms in the country.⁶² In company form, firm policy is determined by a board of directors who respond independently to market conditions in order to maximize profits in the same way that private firms are operated. The principal differences are that the government selects the directors and secures the benefits of the earnings.⁶³

The public corporation form encompasses a greater number of variations than the other two previously mentioned forms. The public corporation is not a government department because it has its own board of directors, accounts, and the capacity to sue and be sued in its corporate name. Except for appropriations to provide capital or cover losses, a public corporation usually is independently financed and is not subject to the budget, accounting, and audit procedures applicable to government departments. However, unlike the company form, the public corporation is established by separate legislation and is subject to government control

^{*} R. Jaile, Management of State Enterprises in India 71 (1976).

^{••} W. Friedmann, Government Enterprise: A Comparative Analysis in GOVERNMENT ENTERPRISE: A COMPARATIVE STUDY, 308-09 (W. Friedmann and J. Garner eds. 1970); U.N. Memo supra note 6, at 6.

⁶¹ U.N. Memo, supra note 5, at 5.

⁶² For a discussion of company form as utilized by the Indonesian government, see R. Prasetya and N. Hamilton, *The Regulation of Indonesian State Enterprises* in LAW AND PUBLIC ENTERPRISE IN ASIA 165-68 (International Legal Center ed. 1976).

⁶² W. Friedmann, supra note 60, at 310-12; R. Pozen, supra note 12, at xx.

⁶⁴ W. FRIEDMANN, supra note 60, at 310-25; R. Pozen, supra note 12, at xx.

as provided in the statute.⁶⁵ There are many variations on the public corporation theme. Some public corporations are very similar to the department form and some corporations resemble quite closely the company form.

The question remains which of these principal models of governance is optimal for a transit enterprise. With respect to the task of identifying and articulating the preferences of individuals affected by a transit system, the directly elected regional officials in charge of a department form enterprise would appear to be best informed as to community preferences concerning transit. The strength of this premise is abated by the informational poverty of city officials regarding transit. The city council, in particular, lacks organization, expertise, time, and interest to cope with the complexities of transit. The Banks Report observes that members of city council must divide their time over an extremely wide field of complex issues.⁶⁶

Although a department form enterprise may enjoy some advantage in the formation of responsive policies, this form has serious problems in translating this policy into operating objectives and performance criteria, and ensuring lowest cost operations. The task requires of policymakers a capacity for independent counsel in business matters and a knowledge of transit operations. Operations, of course, demand full time work and inside knowledge of the business. The government department model increases the risk that these tasks will be delegated to a bureaucracy which lacks these essential characteristics. Indeed our earlier discussion indicated that bounded rationality and information costs lead to informational poverty and response lag on the part of the decisionmakers. 67 Problems of informational poverty and response lag have historically been evident in department form enterprises. Serious shortcomings of departments, in Jaile's view, are both the failure to get correct information and act on it, and the lack of flexibility necessary to give initiative and enterprise full reign.⁶⁸ Departments tend to be impervious to change because of red tape and bureaucracy.69

⁶⁵ U.N. Memo, supra note 6, at 9.

⁶⁶ R.L. Banks and Associates, Study and Evaluation of Urban Mass Transportation Regulation and Regulatory Bodies, Vol. I: Summary and Main Report 83 (1972). Management of one system operated as a department noted that the mayor's staff also may have divided attentions and lack transit knowledge. To be sure, dramatic issues or events may inspire interest in transit on the part of the council or mayor, but its incidence will be uneven and unpredictable. The less informed the policymaking agencies, the less policy will reflect either community preferences or the realities of transit operations. See Mashaw, Civil Liability of Government Officers: Property Rights and Official Accountability, 42 L. & Contemp. Prob. 8, 24 (1978).

⁶⁷ See discussion at notes 42-45 supra.

⁶⁸ R. JAILE, supra note 59, at 43-44, 81-82.

⁶⁹ R.L. BANKS AND ASSOCIATES, supra note 66, at 83.

This lack of responsiveness was noted by Thurston, who comments:

A government department is notoriously poor at adaptation. Hampered by parti-

Rigid rules for the purchase of supplies, placing of contracts, and promotion of personnel are examples of stipulations inherent in government department activity. These rules conflict with accepted commercial practices and hamper response to the market.⁷⁰ As an early U.N. report notes, it is theoretically possible to endow a government department with a high degree of operating flexibility, but in practice it is difficult to do so. "As long as an enterprise is not clearly differentiated from other types of governmental activity, strong pressures will be brought to bear to make it conform to standard government regulations and procedures. . . ."⁷¹

This analysis suggests that the government should create a separate policymaking board under either the private company or public corporation model. Company form can be disposed of quite quickly. The general incorporation laws prescribe forms of organization, financing, and supervision not particularly well adapted to a public institution.⁷² The chief advantages of the private corporation form—limited liability, pooling of investment, transferability of securities, perpetual existence, and shareholder supremacy—have little meaning for a government entity.⁷³ Moreover, since it operates independently of the government, with profit maximization as a motive, the company form will present problems of defining policy and operating objectives and possible lack of control. Operating as a transit monopoly, the firm will also face inadequate competitive pressures.

This leaves the public corporation form. The autonomy from government control implicit in this form is intended to address the problems of informational poverty and response lag apparent in the department form. The key question concerns governance of these corporations. What is the optional mechanism for definition of policy and operating objectives and assurances of efficiency?

E. Optimal Elements of a Transit Corporation

The first paragraph of this section stated that the ideal legal structure for a transit system is one which maximizes the welfare of all people affected by a transit system. Later discussion assumed this would be accomplished through the articulation of policies by policymakers con-

san control, operating on a fixed yearly budget, bound by rigid rules governing its purchases, accounting, expenditures, and personnel, unable to borrow on its own responsibility to provide for new capital equipment or to expand working capital quickly, embarrassed by immunity from suit and other legal rules affording special privileges to the government which destroy commercial confidence and make it impossible to carry on business in accordance with the usual commercial practice, the government department is a failure as an entrepreneur.

- J. Thurston, supra note 43, at 7.
 - ⁷⁰ U.N. Memo, supra note 6, at 6-7.
 - 71 Id. at 8.
 - ⁷² H. Seidman, supra note 3, at 99-100; U.N. Memo, supra note 5, at 18.
 - 72 R. JAILE, supra note 59, at 77.

fronted with the social impact of their decisions and by the performance of these policies at lowest cost.

The principal improvements suggested to confront policymakers with the social impacts of their decisions were voting for policymaking positions with better information to voters and decentralization of policymaking to local levels. Thus in the model local policymakers bear responsibility for policy formation. In order for these policies to reflect community preferences, the community must be informed as to how local policymakers exercise their power to formulate policy. Policymakers should be directed to formulate a statement of policies to facilitate the flow of information to the community. Clearly, a "laundry list" of general policies will not suffice to inform either the community or the operating management adequately of the type of output that is desired. General policy of course provides little direction to, and almost no control over, management. Management can trade off policy goals as it desires.

In order to direct management, and to inform the community, the statement of general policy should be translated into clear and unconflicting operating objectives.74 Since it is the movement of passengers, not empty seats, that is the output of a transit system providing utility.75 the operating objectives of a system should be passenger mobility objectives. As one commentator points out, passenger mobility can be measured in many ways. The simplest way, for example, is the proportion of people that travel and the distance traveled on any given day.76 This type of aggregated mobility measure may not satisfy the general policies of a system relating to, for example, reduction of congestion or to specific income redistribution policies concerning the handicapped. A more refined approach would be to translate the general policies into desired levels of mobility for defined groups.77 For example, in order to effect a policy of reduction in congestion, the correlation between increased transit use by commuters and reduction in congestion must be ascertained. The appropriate amount of congestion abatement must be determined; the corresponding increase in passenger mobility for commuters thus becomes an objective of the system.78 Mobility defined in terms of the movement of targeted groups also captures the goal of accessibility of the system, since the achievement of a certain movement objective cannot be reached unless the system is accessible.

The objectives will thus be stated essentially in terms of desired

⁷⁴ R. Mundy, Mass Transit Guidelines versus a Consumer Orientation in Public Transportation Systems 2 (1977) (unpublished).

⁷⁸ See Dajani and Gilbert, supra note 36, at 97, 99. See also G. Fielding and R. GLAUTHIER, DISTRIBUTION AND ALLOCATION OF TRANSIT SUBSIDIES IN CALIFORNIA 15 (1976).

⁷⁶ A. Tomazinis, Productivity, Efficiency and Quality in Urban Transportation Sysтемя 179 (1975).

⁷⁷ Id.

ARTHUR ANDERSEN AND Co., PROJECT FARE TASK IV REPROT, TASK AND PROJECT SUMMARY 1-3 (1973).

levels of movement for different groups of the population, such as commuters, the elderly, youth, low-income people, or residents of certain geographical areas. Some policies, such as reduction in congestion, may be easier to state in mobility terms than others, such as management of urban growth. However, each objective should be viewed as a hypothesis concerning the relationship of movement of various passenger groups to the general policies. The relationship between the groups' mobility and the policy may not occur in reality as hypothesized. Therefore, the setting of objectives will be a trial-and-error process, and mobility objectives will be redefined from time to time as experience is gained.

The mere statement of clear general policy and operating objectives provides information to the community and directs management efforts but does not provide a basis to measure the adequacy of management's performance. There must also be a means by which to measure the relative degree of attainment of the objectives by management.80 If objectives are defined without any method of measuring performance, evaluation is subjective and calls forth only the minimum threshold effort that management believes will satisfy the review. Objectives whose performance criteria define expected performance levels in specific measurable terms would provide this measurement capability.81 Criteria are essentially scaled operating objectives. Achievement could be defined by increases in the movement of handicapped, for example. However, high achievement in terms of the scaled criteria does not alone measure the performance of efficiency of management. The question arises, at what cost was the mobility criteria reached? Transit efficiency is thus the lowest cost production satisfying any given level of a mobility objective.82 The discussion to follow outlines a means of approximating efficiency in transit operations.

A first condition of cost minimization is the definition of clear operating objectives and performance criteria. Simplicity is desirable, since the fewer the policies and objectives, and the fewer the decisions in implementation and supervision, the more likely the policy will ultimately be realized.⁸³ Implicit in clarity is the caveat that the objectives must also be consistent.

Assume that clear and consistent objectives and performance criteria have been framed. Management autonomy is a second critical condition for cost minimization. Local policymakers cannot work out cost minimizing production strategy. This requires full-time work and inside knowl-

⁷º R. Winnie and H. Hatry, Measuring the Effectiveness of Local Government Services: Transportation 1, 59 (1973).

D. Coombes, State Enterprise, Business or Politics? 167 (1970).

²¹ The board must establish tentative criteria in the form of standards for measuring the success of the broader objective. These are the yardsticks to measure the success of the stated objective. The more tangible such yardsticks are, the more usable they will be. Granger, *supra* note 35, at 68-69.

⁸² Dajani and Gilbert, supra note 38, at 100.

⁴⁴ J. Pressman and A. Wildavsky, supra note 35, at 143.

edge of a business, its markets, its products, and its technologies. Management is in the most informed position to make resources productive in the pursuit of the enterprise's objectives. Stipulations dictated by policymakers lead to uninformed and unresponsive production decisions and consequently to waste and to lost opportunities. Therefore, if management lacks the freedom to follow its own production strategy in pursuing operating objectives, it cannot be expected to achieve the lowest cost production.

Clear objectives and criteria and management autonomy are necessary conditions, but are not in themselves sufficient to ensure lowest cost production. Government enterprises with monopoly franchises are not subject to competitive pressures to minimize costs. Without such pressures, these firms can waste resources through managerial slack and inertia, which includes incurring costs in excess of those which a competitive firm would, and dampening incentives for invention and innovation. Therefore, the third necessary element for efficiency is the existence of competitive pressures on management to perform the objectives at lowest cost. These are the conditions of lowest cost production discussed earlier.

The question is whether the valuable characteristics of market solutions can be retained to spur management of a public corporation. The optimal result would be a market with a number of unfranchised suppliers (either government and/or private enterprises) striving to offer the best product or service in question, including competition for available subsidy dollars. This outcome would be ideal because each producing firm would face the same environment, and selection among them would be automatic by virtue of profit performance and free entry. The normal optimal competitive result would apply here.

If the minimum optimal scale of the government enterprise is large relative to the size of the market, resulting in few producers, the efficiencies that occur from competitive pressures may be attenuated by oligopoly distortions.⁸⁷ If the market is so small that only one producer can achieve minimum optimal scale, there is no competition at all.

Of course if the market could consist of a number of unfranchised suppliers competing with one another, private production may be more efficient. Even if a market is such that only one firm theoretically produces at lowest cost, it may be more efficient for private enterprises to contract for the opportunity to operate a monopoly franchise for a number of years. If there exist a number of private producers willing to bid at each contract renewal then private production may be significantly more

⁸⁴ Drucker, The Real Duties of a Director, Wall St. J., June 1, 1978, p. 20, cols. 305.

⁸⁵ See 44-45, supra (information costs).

⁸⁸ Wolf, supra note 17, at 136.

⁸⁷ See F. Scherer, Industrial Market Structure and Economic Performance 151-69 (2d ed. 1980).

efficient than public production.⁸⁸ More work needs to be done in transit to answer these questions. However, as indicated in the introduction, our purpose here is not to answer the question whether government enterprise, properly designed, is a preferable alternative to private enterprise alternatives, but rather to focus on the issue of the optimal institutional design for public enterprise in transit. Whether or not government enterprise is justifiable on theoretical grounds, in actual practice, many public corporations, including nearly all those in the mass transit industry, operate as monopolies.⁸⁹

Given the predominance of public ownership by monopoly, competition could be effectuated in two ways: (1) intercity competition could be introduced by comparing performance among systems; or (2) competition could be created for the opportunity to manage the firm. This latter approach would not be possible either with government firms that directly employ outside management or with a public purchase and leaseback to a private firm. However, a contract management scheme is amenable to management competition.

Consider first the possibility of creating competitive pressures by comparing management performance among transit systems. The principal obstacle to making such comparisons is that transit monopolies do not sell in the same market and consequently do not face the same conditions of demand and cost. Therefore, the cost differences may not be attributable to managerial competence. An attempt must be made to factor out the influence of these differences in conditions. In addition, the relationship of costs to policies cannot be ignored. Some types of service, for example, service to the transportation disadvantaged, may be more costly than other types. Transit costs are thus in part a function of both operating objectives and an awesome number of factors other than managerial competence. These include, to name but a few, population density, road, traffic, and parking conditions, demographic characteristics, the character of the labor force, climate, and topography.

The possibility exists that regression analysis can be refined to accommodate all these differences in objectives and other influences on costs. However, it is not a practical means of introducing competitive pressure for transit management for several reasons. The skills needed to carry out complex regression analyses of this type are in short supply. It would be better not to do it at all than to do it badly. Even if the techni-

^{**} See, e.g., the discussion of competitive conditions in mass transit and the possible efficiency of franchise bidding in N. Hamilton & P. Hamilton, supra note 2, at 67-69.

See N. Hamilton & P. Hamilton, supra note 2, at 71.

⁹⁰ Posner, supra note 31, at 628.

⁹¹ Public Technology, Inc., Proceedings of the First National Conference on Transit Performance, Norfolk, Virginia 39 (1978). Paradoxically, having just pointed out the relationship of costs to policies and objectives, Fielding and Glauthier recommend comparisons among systems on the basis of efficiency indicators. G. Fielding and R. Glauthier, supra note 75. at 34-35.

cal skill were available, the initial analysis would be extremely costly and it would be costly to update. Management would dispute the methodology used, thereby raising the costs.

Most important, however, there are institutional limits to what policymakers can understand and implement. As Posner points out, "Anyone who believes that a fruitful direction for forward movement in regulation is toward increasing the amount of data and the sophistication of the conceptual apparatus used in arriving at regulatory judgments is ignoring the lesson of experience." Posner's conclusion finds some support in the fact that state public service commissions do not seem to be utilizing the regression models developed for electric utilities by several economists. Posner's

This leaves the possibility that competitive pressures could be introduced by having contract management firms bid for the opportunity to manage the transit system. In order to create competition among contract management firms, the board must set clear objectives and performance criteria. The objectives should be relatively few in number to facilitate maximization by the firms and performance review by the board. The available bloc grant subsidy and plant and equipment should be delineated. Complete data on the system's previous operations should be available to all bidders. Contract management firms can then make management proposals, including a budget outlining what performance levels can be obtained with the revenues available from subsidies, taxes, and the farebox. The specific procedures to be followed in the award of the contract are outlined in Governance of Public Enterprise. The bottom line is that the board selects that proposal which commits management to the highest levels of performance in terms of the criteria. The contract would provide for a base payment if all criteria were met within the budget. In order to prevent the budget from being exceeded, relatively severe penalties should be assessed for failure to stay within the budget. Scaled penalties also should be provided for failure to meet criteria. If performance exceeds the contractually agreed terms, scaled rewards should be granted.

A comprehensive review at the end of each contract period would be necessary to determine whether the criteria, including the budget constraint, have been satisfied. The review should be focused on determining the degree of satisfaction of the performance criteria, not on remaking any of the decisions of management.

Any form of continuous review should be avoided. If the board seeks assurance during a contract period that management is performing adequately, the board can spot check as to whether performance criteria are being met in selected areas. If errors are clearly apparent, further inquiry should be made, and the board should be empowered to terminate man-

⁹² Posner, supra note 31, at 629.

 $^{^{93}}$ See N. Hamilton & P. Hamilton, supra note 2, at 104 nn. 69-71 (discussion on the use of regression analysis in utilities regulation).

agers on short notice following a hearing.

The effectiveness of the contracting process should improve over time. Each subsequent round of comprehensive review and contract negotiations should provide feedback to assist in examining policies, objectives, and criteria.

The introduction of bidding for recurrent short-term management contracts has a number of attractive features. Without having several competitive proposals to review, the board has little idea how challenging the objectives and criteria will be to accomplish. The competitive approach should determine the highest level of performance believed possible with the available revenue. In other words, policymakers will know what is feasible at the level of subsidy available.

Second, even if perfect bidding parity at contract renewal is not attained, the existing management firm is subject to credible survival threats that will spur performance.⁹⁴ The fact that rival groups of shareholders in a private corporation may at times seize capital is thought to be a powerful incentive to management efficiency.⁹⁵

There are other advantageous features. This approach to lowest cost production is considerably simpler and more effective for the board and management than engaging in management audits and other constraints of the absurd. The board's attention is properly focused on policies, operating objectives, and criteria. Once criteria are set, the monitoring of management performance poses relatively few problems of data collection and interpretation. Management is relieved from the burdens of generating a number of reports. As pointed out by a manager of one medium-sized system, when people are filing reports, they aren't doing anything productive. Inadequate managerial performance also should be quickly apparent and could continue no longer than the duration of a short term contract.

The effectiveness of the contracting process should improve over time. Each subsequent round of comprehensive review and contract negotiations should provide feedback to assist in examining policies, objectives, and criteria.

A contract management approach also avoids the political roadblocks that traditionally make transit management posts unattractive to managers. Both salaries sufficiently high to attract top management talent and incentive compensation schemes to elicit superior performance are possible in a private firm context.

A brief summary of the major optimal elements of a public corporation would be useful at this point. In the model, policymakers are to formulate a statement of policies reflecting the appropriate social opportunity costs (and income redistribution constraints). Policymakers must ensure these policies are realized at lowest cost. In order to achieve this,

^{**} Roberts, supra note 12, at 421.

⁹⁶ W. Shepherd, supra note 32, at 202-03.

policymakers must translate their policies into a few unconflicting operating objectives, not stipulations, framed in terms of the production of utility. Utility only arises from the movement of passengers. The operating objectives allow for flexibility in policy and can be granted to create performance indicators to measure the degree of accomplishment of the objectives. Articulation of operating objective and performance indicators allows management to exercise sole control over the decisions that require detailed knowledge of the production process. These are operational components, such as maintenance, labor relations, routing, scheduling and promotional activity.

All the preceding measures make possible the implementation of conditions to spur realization of the policies at lowest cost. The introduction of bidding by contract management firms for short term contracts will both define what it is possible to achieve with the measures available and make more likely its accomplishment at lowest cost. All these features will hereafter be referred to as the transit corporation model.

III. TRANSIT EXPERIENCE COMPARED TO THE IDEAL MODEL

The case studies were undertaken primarily to outline the models of institutiinal design being used by the systems surveyed and to determine whether there existed a generally accepted model of governance. The inquiry was also to provide insight into the practical problems of existing models. In section IV, we consider the political acceptability and practicality of modifying existing models of governance to conform to the ideal model presented above.

Case studies of the U.S. transit systems documented considerable diversity in legal structure among them, strongly suggesting that there does not exist in the United States a generally accepted model of governance for government enterprise in mass transit.98 It would serve little here to illustrate this lack of a widely accepted theory with exhaustive detail. However, one point should be emphasized. The case studies indicate that not only is there lacking any generally accepted model among the seventeen, but also in many individual systems there is considerable ambiguity concerning the type of legal model intended by the legislature. Three of the seventeen systems included in the study are clearly government departments. Of the remaining fourteen created legislatively as separate transit authorities (public corporations), five are clearly modeled on the private corporation implying significant management autonomy in operational matters. Four are labeled municipal corporations implying close bureaucratic control over policymaking and operations. The nature of the legal entity created is left undefined in the other five, providing no model of how policy is to be determined and operations conducted.97

See N. Hamilton & P. Hamilton, supra note 2, at 11-16 nn. 6-61.

⁹⁷ See id. at 13-14, for example, in Ohio, the statutory language directs that a regional

The results of the Canadian studies were consistent with those in the United States. Although some systems adhered reasonably closely to one of the paradigm forms of public enterprise discussed earlier, others showed diverse characteristics which made classification difficult. For example, many systems resembled public corporations on paper, but in practice were operated like a department of the local government because of the relevant funding system. Finally, one system was historically structured like the private model, but in fact was run like a department of the local government.

Within this diversity of legal structures, there are several common problems. The first applies only to the United States. The concept discussed earlier that local transit policy should flow from an overall regional development plan has not been realized in the United States.¹⁰¹ If anything, conflicts in policy and planning uncertainty have been exacerbated by the strategies of many local governments to gain advantage. Many long term opportunities are thus foreclosed with consequent increases in transit costs.

There were also severe problems of multiple level policy determination in the United States. To take an example, in Pennsylvania, the State Department of Transportation has published an exhaustive list of standards "for which exact compliance is expected." The allocation of state mass transit funds is based on the degree to which transit agencies adhere to these standards. The standards specify in great detail production characteristics concerning network structure, transporting capacity offered, headways, speed, reliability of service, comfort and convenience, and fares. For example, regarding vehicle capacity at peak, the depart-

authority is a political subdivision of the state and a body corporate with all the powers of a corporation. Ohio Rev. Code Ann. § 306.31 (Page 1979). In contrast, the Champaign-Urban Mass Transit District is labeled a municipal corporation. ILL. Ann. Stat. ch. 111 ¾, § 353 (Smith-Hurd 1966). Legislation creating the systems in Indianapolis, Fort Wayne and Gary provides no guidance as to the type of entity created except that it is a "public transportation corporation." Ind. Code Ann. § 19-5-10 (Burns 1974).

- ³⁸ The systems in Montreal and Hull were legislatively structured and run according to the public corporation model. The Mississauga system operated as a department.
- ** This conflict was particularly evident in the systems in Kingston, Oshawa, and London, and to a lesser extent it was observed in Ottawa and Toronto.
- ¹⁰⁰ The Hamilton system still retained a share structure with all shares owned by the regional government.
- 101 See notes 52-54 supra. During the 1960s, the federal government attempted to solve the problem of coordinated planning among the many local communities in a metropolitan area by requiring the creation of a regional Metropolitan Planning Organization (MPO) as a condition to qualify for federal transit subsidies. The expectation that the MPO would coordinate and improve the planning of urban development and transit policy has in large part been disappointed. See N. Hamilton & P. Hamilton, supra note 2, at 16-18, 94-96.
- 102 PENNSYLVANIA DEPARTMENT OF TRANSPORTATION, OPERATING GUIDELINES AND STAN-DARDS FOR THE MASS TRANSPORTATION ASSISTANCE PROGRAM 7 (1973).
- 102 Id. at 24. Note, however, that in actual practice only flagrant violations of the guidelines may be penalized.

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ment directs, "Vehicle capacity for each quarter hour shall be determined as 5 square feet per passenger on a travel length not exceeding 15 minutes."104 New routes are not to be added unless approved by the department. 105 As pointed out in previous discussions, stipulations like these are undesirable because of lack of flexibility. In addition a program occurs since some managers at the operating agency level placed blame for their system's troubles on policies arising from one or more levels above them. The ability to shift responsibility was particularly serious in the interaction between management and the local transit board and other local policymakers. The ability of management to shift responsibility for conditions to a higher level weakens the accountability of management to local policymakers. Similarly, local policymakers can use the same excuse to the local community, and therefore, the accountability of local policymakers to the community is diluted.108

At the federal level in the United States, there are several good examples of decisions which conflict with the basic notions of efficient local policymaking discussed earlier in Part II. Pressures from organized labor, the elderly, and the handicapped have been particularly effective in eliciting policy from the federal government in the form of stipulations favorable to their interests. For instance, in section 13(c) of the 1964 Urban Mass Transportation Act there is a guarantee that the position of employees would not be worsened as a result of a federal subsidy. 107 The result is that for any particular action, the benefit to overall transit service must be ignored if labor might be hurt. It makes no difference if there is a large benefit to nonlabor and a small loss to labor. Section 13(c) precludes the action.108

Perhaps the most significant difference discovered between the transit systems in the United States and Canada was observed in this area. In Canada, there is little or no federal involvement in urban mass transit. Moreover, very few goals are set at the provincial level, and those that are set are not in the form of stipulations, but rather, economic goals expressed in budgetary terms. Indeed, in Ontario the provincial government has recognized the desirability of local control, and funded studies specifically designed to deal with local transit needs. Sensitivity to local

¹⁰⁴ Id. at 9.

¹⁰⁵ Id. at 10.

¹⁰⁶ In general, the costs of political accountability to the community will be higher and its extent lower if control by constituencies requires coordinated action at several levels of government. See Roberts, supra note 12, at 423.

¹⁰⁷ Urban Mass Transportation Act of 1964, § 13(c), 49 U.S.C. § 1609(c)(1976). Similar stipulations exist favoring the elderly and handicapped. See N. Hamilton & P. Hamilton, supra note 2, at ch. 2 nn. 149-58. Note that this not only illustrates political imbalance but also no guarantee of efficiency. However, in this case there is even a less result: guaranteed inefficiency.

¹⁰⁸ For discussion of the same issue with regard to the elderly and handicapped, see N. Hamilton & P. Hamilton, supra 2, at 34-36.

needs was also recognized in Ontario when regional government was introduced. Municipal transit systems within the region were not obliged to become regional systems; this decision was left to management, and a provision for voting systems was made in the legislation to reduce any conflict between and among the participating communities should they join a regional system.

In addition, we did not observe any policies formulated to benefit particular subgroups, as had been observed in the U.S. studies. No policies favorable to labor were observed, and policies favoring the elderly were adopted, if at all, at the local level. Provincially funded programs designed to assist the handicapped were separately funded and administered.

In addition to the severe problem of multiple level policy formation in the U.S., a second common problem is that the systems have failed to articulate policy which unambiguously reflects social goals and allows measurement of management's fulfillment of those policies. The U.S. case studies revealed that the exact opposite of what is desired has actually occurred. If policies of a social nature were articulated at all, they were usually general policies, using ill defined as well as undefined terms such as "welfare", "adequate", and "suited to the need". In fact, in nine systems no formalized policy guidance was provided by either the enabling legislation or by decisionmakers at the operating agency level. In the other eight systems, even when general policy was articulated it usually took the form of a "laundry list" with no indication of the policies' priority. Only a handful of the systems in the study had attempted to further define general policy in terms of operating objectives. 109

Policy that was not vague usually bypassed what were called operating objectives, which would give management direction with flexibility on production decisions, and dictated operational matters which can reasonably be considered only the domain of management. In other words, too many stipulations were used. Operating objectives and stipulations can both be useful when directing social policy, but in most of the studied cases stipulations dictated such things as routes, loading standards, headways, and the like.¹¹⁰ The board also frequently tended to concentrate not on policy but on operational transactions such as the approval of the payment of bills and negotiated contracts. While perhaps not stipulations, these decisions are still essentially operational decisions.

When the transit system had no policy to guide management or when only general policy was articulated, the result in the case study systems was that the budget allocated the resources available and implicitly sets objectives.¹¹¹ Defining policy through the budgetary process has serious drawbacks. The actual policies being pursued will be obfuscated, and

¹⁰⁹ See N. Hamilton & P. Hamilton, supra note 1, at 18 n. 75.

¹¹⁰ See id. at 24 n. 106.

¹¹¹ See id. at 25-26.

outside evaluation by voters or appointing authorities will be inhibited. Most critically, the budgeting process tends to be accretionary and does not take a comprehensive view of the mission of the system and the final effects desired. The balancing and planning necessary for maximizing the change in welfare are absent. Due and Friedlander point out that existing programs are not reviewed in detail in the preparation of a budget. "The presumption is that existing activities will continue unless there is strong evidence that their existence should be reconsidered." "There should be comparison of the relative merits of various requests. The traditional presentation of material in a budget does not facilitate this task."

When the boards fail to guide management, the old maxim "Having lost sight of the objectives, we redoubled our effort" comes into play.¹¹⁴ The mode of operation in systems without policy was described by one manager as "firefighting." That is, whenever an externally imposed emergency occurs, the system chases after a solution trying to fulfill its obligation. Generally by the time one "fire" is out, another "fire" is created by another regulatory body or by public demand for service. Busywork itself becomes a goal. Some systems become so accustomed to this mode of operation that when there is no fire to put out, employees sometimes come to the office and have no idea of what to do for the day.

Again, the results of the Canadian studies were similar. Although instances of all four types of policy discussed earlier were found, general policy¹¹⁵ or stipulations¹¹⁶ dominated. In no case were operating objectives specified in the governing legislation, and in some cases the legislation contained no policy directives whatsoever.¹¹⁷ Only in Toronto and Halifax were policies which could be termed operating objectives identified, and in both cases these had arisen at the local government level.¹¹⁸

These first two problems may in part be attributable to a third short-

 $^{^{112}}$ J. Due and A. Friedlander, Government Finance: Economics of the Public Sector 133 (1977).

¹¹³ Id. at 138.

Granger, supra note 35, at 63. See N. Hamilton & P. Hamilton, supra note 2, at 27-28.

¹¹⁸ For an example at the legislative area see the *Municipality of Metropolitan Toronto* Act, R.S.O. 1970, ch. 295, § 104(a) which says the Commission shall plan for transportation "so as to serve best the inhabitants of the Metropolitan area." For an example at the system level, consider the comments of the Ottawa systems interviewee, describing the system's goal as "public service to the community."

¹¹⁶ The interviewee of the London system described the system's goals as "service within ¼ mile of the residential areas and maximum headways of 30 minutes until 6:00 p.m."

¹¹⁷ There is no legislative policy in the acts governing the systems in Kingston, Mississauga, and Ottawa.

¹¹⁸ In Toronto, the system was cooperating with the local government to encourage development in certain areas of the city by putting subway routes there. In Halifax, the system and the city were cooperating to reduce traffic on the two bridges connecting the city to the surrounding area.

coming common in the systems in the United States. The studies indicated a failure in many U.S. systems to achieve the board/policy—management/operations distinction which was suggested earlier as ideal.¹¹⁹ In part, this may be explained by the difficulty of capturing the theoretical distinction in a legislative instrument. In other cases the board, perhaps due to its members' lack of transit or even business expertise, seemed to unduly rely upon management for policy development and as a supply of information concerning performance.¹²⁰ The same pattern was observed in the Canadian interviews: management taking the initiative in the areas of budget, service, and planning, followed by routine approval by the board. Only in the Hamilton system were planning initiatives observed to emanate from the board.

It appears that because of these factors, the boards in many of the case studies are only titularly carrying out their policymaking and monitoring functions. That is, even though the policy statement may appear to be written by the board, it is actually transit management who designs the policies, and the policies are rubberstamped by the board with minor or no alterations. If policy is formulated implicitly through the budget process, the problem of management's cooption of policymaking function is even more apparent. In many of the systems, budgeting is a highly internalized management process with few changes made by the board after the budget is presented for approval. In some cases the board has never adjusted a budget proposed by management. Even the data provided for purposes of monitoring the budget and evaluation of management performance are basically a product of management initiative.¹²¹

It appears that in most systems in Canada and the United States, management plays the principal role in articulating policy, in formulating the budget, and in providing the data base for its own evaluation. This arrangement quite seriously reduces the meaningfulness of both policies and evaluation since one cannot expect management to design policy or to monitor its success in achieving it without taking its own possibly inconsistent self-interest into account. In fact, it is fair to conclude that in many systems management has co-opted the process of planning, determining policy and monitoring implementation by virtue of its control over planning, personnel, and information.¹²²

In view of the observations about policy definition, a fourth short-coming, the general lack of institutionalized procedures or indicators for evaluating operational performance, is not surprising. In neither country, did the studies reveal a transit system with a mechanism to guarantee movement toward more efficient production, nor were there any truly ef-

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¹¹⁹ See notes 36-37 supra.

¹²⁰ See N. Hamilton & P. Hamilton, supra note 2, at 26-27.

¹²¹ Id.

¹³³ In particular see the discussion of the relationship of the board to management in Toledo and Columbus described in N. Hamilton & P. Hamilton, supra note 2, at 26.

fective standards of excellence against which management could be measured. This is of extreme concern. Without these conditions, observations on "efficiency" are meaningless. It is irrelevant that management appears efficient, or that management vows it is producing at lowest cost. No one is sure that another manager could not do the job better (that is, more efficiently). Without an assurance of relatively efficient production, excessive costs are difficult to detect.

It is clear that the state of the art of management in transit is relatively unadvanced. For example, even though the budget is a weak check on management, in most systems the adequacy of management performance is generally measured in the first instance by management's adherence to the budget. This control over management is supplemented by a number of lesser constraints, generally absurd. For instance, all the systems in the study utilized audits by an outside auditor to prevent over obligation and to ensure both the financial representations are correct and operations are in accordance with prescribed requirements. In a few systems, performance audits by consulting firms are also required. The audits are backed up by regular, usually monthly, reports prepared by management for the board. The reports are intended to enable the board to monitor management performance. This is explicitly stated by the Akron board, which directs the general manager to provide monthly operating statements to the board reflecting the prior month's activities and "progress." "Progress" is not defined. The information provided by the reports is of limited value in assessing management performance. The Banks study notes that the reports now in use were designed to ensure honesty of general financial reporting in an era when financial speculation and manipulation were characteristic of the transit industry.124

In another example, the principal focus of the monthly report of the Columbus system is to inform the board concerning variances from the budget so as to flag the possibility of not meeting the balanced budget constraint. Comparisons of cost and revenue between the previous year and the current year also are included. Similar reports are made available to the boards in other systems.

No significant differences were observed in Canada. All systems were audited by an outside auditor and were subject to audits by the provincial and local governments. The interviews indicated that management's performance was intimately connected with its ability to adhere to the budget, and in fact this was mentioned as one of the system's main goals in a number of interviews. Budgetary constraints were invariably set by the Board, but these can only be regarded as constraints of the absurd. At the time the study was conducted, it was impossible to determine whether the Ontario government's funding incentive system will produce

¹²³ AKRON METRO REGIONAL TRANSIT AUTHORITY, RULES AND REGULATIONS § 4.3 (1974).

¹²⁴ R.L. Banks & Associates, supra note 66, at 24.

¹²⁵ CENTRAL OHIO TRANSIT AUTHORITY, REVENUES AND EXPENSES (1977 and 1978).

any significant changes.126

A last check on management performance is the imposition of bidding requirements on contracts let by the system. Normally the board reviews all contracts on which bids are required. Most systems in the study have contract bidding requirements. In one major system, the general manager stressed board approval of contracts as a more important control on management's financial discretion than budget review. However, this comment gets more to the weakness of the budgeting and reporting requirements as a means of directing and monitoring management than to the strength of the contract bidding requirement in accomplishing these goals.

The set of checks on management just discussed leaves much to be desired. All are designed to prevent gross management abuse rather than to guarantee lowest cost production. In fact, the case studies generally indicated few pressures on management to perform efficiently. The appraisal process is highly subjective and probably depends more on political than business considerations. One commentator, noting the extreme difficulty of transit boards in appraising management performance, suggests that "the board at best has only a subjective intuitive grasp of management performance."127 Under these conditions, management may well perceive political activity as more rewarding than increasing the efficiency of the system. These checks on management are, therefore, essentially constraints of the absurd. As long as management meets the budget and is not involved in public scandal, it appears secure. For those few boards which attempt to make their general policies more precise, the result is usually just a tightening of the absurd constraints resulting in a slightly clearer sense of poor performance.

In summary, transit studies support two major general observations. First, despite the different origins, and different political and economic climates, urban mass transit systems in the United States and Canada exhibit relatively few significant differences. The greatest differences observed were related to the more active influence of the federal and state governments and special interest groups in the United States. This is a significant advantage for Canadian transit. Although there are significant differences at the state, local, and system levels within each country, the range of phenomena observed in both is virtually identical. Secondly, the systems in both countries bear little or no resemblance to the ideal transit model posited earlier. This suggests either serious deficiencies in the model itself, or in the manner in which these vital government enterprises are presently operated. In the next section we attempt to reconcile the ideal model with some of the practical difficulties observed in the studies.

¹²⁶ See appendix, at I.

¹³⁷ Horn, Transit Boards, Part II: How Do They Work? 3 Transit J. 51, 67 (Fall 1977)[hereinafter Horn, Part II].

IV. THE TRANSIT CORPORATION MODEL IN PRACTICE.

Earlier discussion in Section II developed the transit corporation model.¹²⁸ In Section III our inquiry turned to the practical problems of existing diverse models of governance for transit. We can now turn to the question of refining the transit corporation model to account for these practical problems.

It has been suggested that policy should primarily reflect the preferences of the local region affected by a transit system. A regional development plan including a transit component should be formulated by policymakers answerable to the regional community.129 However, as the discussion in Section III makes clear, comprehensive metropolitan planning has largely been a disappointment.130 Since regional land-use planning has played an insignificant role in the systems in the United States. the board of the transit corporation still has the "bottom line" responsibility to determine transit policy, develop operating objectives and performances criteria, and monitor management performance. Because of the inability of the regional planning institutions in the United States to compel compliance with regional development plans, responsibility for transit policy must be carried by the transit corporation board without benefit of an obligatory coordinating regional plan that is binding on all local governments. Obviously if effective regional planning were possible, this is a preferred alternative since the policy conceptions of the transit corporation board do not necessarily incorporate any perception of the development preferences of the entire region.

Section III also pointed out critical shortcomings in that transit policymaking bodies are failing (1) to articulate clear policy, operating objectives and performance criteria; (2) to respect the distinction between board control of policy and management control of production; and (3) to ensure lowest cost production by management. It was also observed that in many systems in the United States, management has co-opted the policymaking process and their performance evaluation.

Of course in theory the provisions of the transit corporation model outlined in section II should remedy these problems. In the model, policy-makers are to formulate a policy statement, operating objectives, and performance criteria, and management is to be assigned all decisions that require detailed knowledge of the production function. The introduction of bidding by contract management firms suggested in the model will increase competitive pressures on management. It would be advisable that the structure creating a transit corporation actually spell out these

¹²⁸ See discussion of notes 74-95 supra.

¹²⁹ See discussion at notes 56-57 supra.

¹⁸⁰ See discussion at notes 101 supra.

¹³¹ See discussion at notes 38-39 supra.

provisions.132

All of these proposals seem possible to implement given present conditions in the bus transit industry. In particular they are simple and are already in use. In the past several years, contract management has been increasingly utilized in the transit industry. As of 1979, five contract management firms provided management services to a total of sixty-six urbanized areas to operate their transit systems.¹³⁵

Implementing the characteristics embodied in the transit corporation model will improve both allocative efficiency and lower costs of production. It will clearly define both the board's role in expressing the welfare function in terms of operating objectives and performance criteria, and management's autonomous role in implementing a production function that will satisfy the criteria. Moreover, these conditions, combined with a means of introducing competitive pressures on management, will increase efficiency. However, the incorporation of these proposals into a statutory scheme may not in itself ensure their effectuation. Statutory directives and admonitions, no matter how carefully drawn, may not be sufficient to prevent a board or management from misapprehending the model or making other errors in judgment. It is a reasonable assumption that the legal structure and the minimization of error in determining policy and monitoring management are inextricably linked, since it is the structure of the board which in large part defines the information available, the competence and motivation of the board, and the decisionmaking procedure. From this assumption several suggestions will be made and discussed below.

The board performs the roles of identifying and aggregating the preferences of the individuals affected by transit, formulating responsive policies, translating this policy into operating objectives and criteria, and ensuring conditions for cost minimization. To minimize error, a board must be qualified to undertake these functions.

Consider first the task of defining policies that reflect the preferences of the people. This requires a knowledge of the local community. Some U.S. systems in the study used a geographic representation on the boards on the assumption such board members would have more intimate knowledge of problems in the local area represented.¹³⁴ In the Montreal system, no geographic representation as such was demanded of board members, but council members from within the City of Montreal chose one commissioner to represent city interests, and councilors from outside the city chose one commissioner to represent the interests of residents outside the city. In Hamilton, for example, the commission was composed of five members of regional council representing the City of Hamilton, and four members of regional council representing the remaining area.

¹³² See N. Hamilton & P. Hamilton, supra note 2, at 111-12.

¹³³ See id. at 108-09 (current procedures for awarding management contracts).

¹³⁴ See e.g., Cleveland, Ohio, Ordinance 2380-B-74 (December 30, 1954).

The task of translating policies into operating objectives and performance criteria requires of the board a capacity for independent council on business matters and a knowledge of transit operations. One commentator observed that in addition to independence, a director should possess three attributes: first, a familiarity with the management of complex organizations, knowledge of corporate business and finance, and sensitivity to social policy; second, the ability to raise unpleasant questions without alienating other board members or management; and third, a willingness to spend the time necessary to do the job. 135

The operation of the model depends on the board's being both independent and unbiased in its tasks. One commentator notes that directors must have no interest regarded as incompatible with their duties. ¹³⁶ In order to maintain board autonomy, some systems prohibit elected officials from serving as board members. ¹³⁷

Board members must also have sufficient knowledge to execute their tasks. 138 Although a high degree of knowledge concerning any of the three areas—community preference, business matters, or transit operations—contributes greatly to each board member's utility, a minimum skill level in all three is essential. Since few members of the community are knowledgeable about transit, it should be mandatory for board members to receive training on transit operations. 139 Because it is a sufficient challenge for any system to educate its board on transit operations, board membership should not be an occasion for remedial work in the areas of general business and financial knowledge or community familiarity. Board members with business backgrounds can absorb transit information much faster than those without experience. The potential benefits of improving the educational level of board members are many, "Not the least of these" suggests one commentator, "will be the relative facility and speed with which well-educated appointees can pass through unproductive initiation periods. Staff domination of commission proceedings will also be increasingly unlikely."140 This suggests that minimum qualifi-

¹³⁵ Solomon, Restructuring the Corporate Board of Directors: Fond Hope—Faint Promise, 76 Mich. L. Rev. 581, 603 (1978).

¹³⁶ J. Thurston, supra note 45, at 159.

¹³⁷ This is the position taken by the Ohio Attorney General in interpreting the state enabling legislation for transit authorities. 73 Op. Att'y Gen. 016 (1973). This position was also found in Canada in the enabling legislation for the system in Hull, Quebec.

¹³⁸ Solomon, supra note 135.

¹³⁹ Of the systems in the study, only Columbus had a regular workshop on transit issues. Chicago RTA trustees are encouraged to attend CTA transit management programs. Horn found less than nine percent of board members had experience in transit, and most of this was very limited. Horn, *Transit Board Members: Who They Are and What Do They Do*, 2 Transit J. 15, 20 (Nov. 1976). None of the systems in Horn's study had any training program. *Id.* at 29. In Canada, commissioners of the Toronto Transit Commission attended conferences, although not as frequently as management staff did.

T. Pelsoci, The Energy Crisis and the New Breed of Regulators: A Study of State Public Utility Commissions, 7 (1979)(accepted for publication in Midwest Rev. Pub.

cations for board membership should include residency in a community for several years, as well as some education or experience in business or financial matters.

Board specialized expertise can be further developed through a committee structure, wherein each committee focuses on an interrelated group of issues. In addition, a committee approach is often a more efficient method of operation than full board participation. Such a structure existed in all but one of the U.S. systems in the study. The Securities and Exchange Commission (SEC) has favored the establishment of a strong committee system as one method of strengthening the independence of private corporation boards and enabling the boards to better serve corporations in an overseeing capacity. Governance of Public Enterprise suggests a committee structure involving the creation of an audit committee, a management contract committee, and a performance measurement committee.

The model anticipates that board members will be working participants in formulating policy, not peripheral participants who confirm or ratify decisions. In order to attract and motivate qualified board members, board members must be adequately compensated. A possible yardstick in determining adequate compensation is the stipend offered to directors of similarly sized private corporations in the system's area.

The level of performance expected of a compensated board is justifiably higher. Legislation should direct the board to undertake training in transit and set an attendance requirement at committee and board meetings. One commentator uncovered three transit authorities that have attendance requirements. Any attendance below, for example, 80 percent of meetings would be cause for removal.

A combination of minimum qualifications, a committee structure, compensation, obligatory attendance, and training in transit should increse the competence and motivation of the board and reduce the probability of error. The objective is that the board be knowledgeable, not experts. In addition, the board itself is incapable of screening and interpreting vast quantities of raw data about the system. The board's capacities must be supplemented by a planning staff with the time and requisite technical knowledge both to assist in carrying out the planning process that ultimately yields the performance criteria and to measure

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¹⁴¹ SECURITIES AND EXCHANGE COMMISSION, PROPOSED RULES RELATING TO SHAREHOLDER COMMUNICATIONS, SHAREHOLDER PARTICIPATION IN THE CORPORATE ELECTORAL PROCESS AND CORPORATE GOVERNANCE GENERALLY, 293, 297 (July 18, 1978).

¹⁴² See N. Hamilton & P. Hamilton, supra note 2, at 116-17 nn. 126-29 (discussion of committee structure for the transit corporation).

¹⁴³ Tecson, The RTA in Northeastern Illinois, 56 CHI. B. REC. 318, 326 (1975). The Chicago CTA and RTA provide substantial salaries to directors.

¹⁴⁴ R. JAILE, supra note 59, at 203.

¹⁴⁵ Horn, Part II, supra note 127, at 61.

whether the criteria have been achieved.146

Specifically, the planning staff can collect and analyze information on community preferences and internal and external constraints, develop responsive and rationalized policy alternatives among which the board can choose, and draft performance criteria for the objectives set by the board. The board must be brought into the planning process at a sufficiently fundamental level so that they have a full understanding of the final choices.¹⁴⁷

As indicated in Section III, in many systems the board depends on management staff for the planning and internal auditing input. In the instance of the internal audit function, management views internal audit as an operating mechanism to aid in administering the business in the most effective manner. However, the audit committee of the board views the internal audit as a protective device to check compliance with company policy and government regulations, safeguard assets, detect fraud, and to maintain the integrity of the company. There is a conflict between the two functions; the same internal auditors cannot serve both functions. The audit and performance committees should have an internal auditing staff separate from management's internal audit staff.¹⁴⁸

Similarly, in the instance of the planning function, management views planning in terms of formulating, coordinating, and evaluating the various elements of the production function. The Banks Report notes that reliance on management for information will result in transit costs and transit revenue consuming the agency's attention, not the mobility of the population. 149 The board's committees see planning from the broader perspective of the welfare function as the critical element in the process leading to performance criteria and the determination of adequacy of performance. Conflicts of interest are apparent when the management planning staff puts forward objectives and performance criteria and measures its own performance. Indeed, in some systems where management controls the planning staff, it appears to co-opt the entire process of objective setting, to control the information flow to the board, and to prevent any effective monitoring of its activities. For example, earlier discussion noted that many systems had (1) no objectives or only objectives proposed by management with board "rubber-stamp" approval, (2) information flow to board controlled by management, and (3) ineffective checks on management performance.

The independence and freedom from bias in policymaking and monitoring which the model requires of the board are called into serious ques-

¹⁴⁶ R.L. BANKS AND ASSOCIATES, supra note 66, at 343.

¹⁴⁷ Granger, supra note 35, at 71. See N. Hamilton & P. Hamilton, supra note 2, at 19 nn. 138-39.

¹⁴⁸ See N. Hamilton & P. Hamilton, supra note 2, at 119 n. 140 (discussion of potential conflicts of interest for audit staff).

¹⁴⁹ R.L. BANKS AND ASSOCIATES, supra note 76, at 107.

tion when the board relies on the management planning staff. The board must have its own staff to provide the planning and determination of objectives, the design of performance criteria that direct management toward accomplishment of the objectives, and the evaluation of management's success in meeting such criteria. The staff should conduct both spot-check and comprehensive reviews. In smaller systems, planning assistance for the board can be provided by outside consultants. In the event that short-term management contracts are adopted, another practical reason for having board planning is evident: the board planning staff must take responsibility for the long-term planning of investment.

Earlier discussion in Section II established that it is essential for political decisionmakers to be cognizant of the social gains and losses attributable to their decisions. This cognizance is, in large part, a function of political pressure. If decision makers perceive their tenure as contingent upon identifying community preferences and meeting them at lowest cost, policy will reflect those preferences more closely. The transit corporation model requires that the community must both be informed as to the policies adopted and the level of efficiency achieved, and be able to rectify inadequate board performance. Voting was suggested as a very imperfect method of confronting political policymakers with the social impacts of their decisions.¹⁸⁰

However, discussion later in Section II pointed out that directly elected officials like city council members lack organization, expertise, time and interest to cope with the complexities of transit.¹⁵¹ This increased the likelihood that city council members were not qualified to articulate transit policy, translate it into operating objectives and performance criteria, and ensure lowest cost operation.

As is evident from the earlier discussion, the question whether the transit corporation board should be elected or appointed is an extremely difficult one, and has no certain answer. The discussion following sheds more light on these issues.

The populist preference for direct election of public officials, including judges and regulatory commissioners, is based on the view that the inevitable political influence in any appointment process should be avoided. The argument is that the very fact that selection has to be made by some political authority permanently injects politics into the matter. Therefore, the shift from an elective process to an appointive one results in transferring the matter from an overtly political arena to one where politicking is more "clubby" than it should be because it is less visible to the public. The elective process, as poor as it might be, is then, always to be preferred to an indirect method of selection that is not necessarily representative of the people who have to abide by the governmental

¹⁸⁰ See discussion at notes 26-30 supra.

¹⁵¹ See discussion at note 66 supra.

decisions.152

Direct election is also thought to result in shorter tenure in office. Shorter tenure is considered desirable for public officials, since "more is lost by long continuance of men in office than is generally to be gained by their experience."¹⁵³

The assumption that the elective process leads to selection of officials representative of the people may be questioned, however. The electorate does not have sufficient knowledge of planning and production function problems to have a clear notion of board competence.¹⁸⁴ Unless glaring inadequacies are manifest, the community will probably have little knowledge of board performance. The value of incumbency at the time of reelection also suggests that elected boards are not answerable to the people.¹⁵⁵

Even if it is assumed that a direct election may yield board members who are more responsive to the community, elected board members may not possess the capacity to give independent counsel on business matters. This lack of expertise may inhibit the board from implementing the conditions necessary for the lowest cost production. The failure to achieve the lowest cost production function decreases the community welfare, which the board is directed to maximize, and which is a principal reason for adopting a transit corporation form in the first place. For example, in a survey of elected and appointed public utility commissions in the United States, one commentator found clear evidence that rates were substantially higher under elected commissioners than under appointed ones.¹⁵⁶

Given the current evidence, it would be preferable to create a mechanism to ensure that the factor of competence is incorporated into the choice of board members. Appointment to the board by elected local officials on the basis of qualifications has a higher likelihood of satisfying the model's condition that a board be competent.

Two checks can help prevent the appointment of an unqualified and unbalanced board. First, the media will play a major role in monitoring the qualifications of appointees. In addition, an advisory group should be legislatively created to help appointing authorities screen candidates' qualifications. Such committees, appointed by the legislative branch, can

¹⁶² Heggs, Merit Selection of the Ohio Judiciary: An Analysis of S.J.R. 6, and a Proposal for Implementation, 28 Case W. Res. L. Rev. 628, 638 (1978). See also, T. Pelsoci, supra note 140, at 14.

¹⁵³ F. Mosher, Democracy and the Public Service 62 (1968).

¹⁵⁴ See Heggs, supra note 152, at 644.

¹⁵⁵ See id. at 645; T. Pelsoci, supra note 140, at 10.

¹⁵⁶ T. Pelsoci, Commission Attributes and Regulatory Discretion: A Longitudinal Study of State Public Utility Commissions 22 (1978)(unpublished). See also R. Schmalensee supra note 41, at 89, 92 (discussion of the expertise needed to supervise government enterprise). Schmalensee also finds some evidence that regulatory performance is better with an appointed commission rather than an elected one. Id. at 62.

assist in providing public scrutiny of the competence of appointees. If the appointing officials must choose from panels of candidates approved by the committee, the advisory committees also can seek to achieve some balance in representation. Several systems in the study already have citizens' advisory committees that could be used for this purpose.

The next question is whether an appointed board, once in office, is answerable to the community for its actions. Critics charge that appointed boards are insulated from public opinion and are unresponsive to the community.¹⁸⁷ The 1954 U.N. Report also noted that removal from political pressure may mean that significant political power lies in the hands of a small unrepresentative, and, in extreme cases, self-perpetuating group controlling public corporations.¹⁸⁸

Measures which can be taken to correct these tendencies must be discovered. The success of any system of rewards and sanctions depends on both adequate information reaching an official's superiors—in this case the appointing authorities and the community—and the ability of the superiors to bring sanctions to bear on the official. Given an appointed board, the challenge is to discover an incentive scheme that diminishes a board's isolation from public pressure and forces the board to be responsive.

Several checks on the board may contribute to this end. The most direct check is through the appointment process. In order to encourage responsiveness to community preferences, it may be advisable to appoint board members to fixed terms, but maintaining removability at will by the appointing authorities. Long tenure on a board can also lead to inertia. More frequent turnover could contribute to greater openness to innovative proposals and increasing sensitivity to the social (not only economic) dimensions of regulation. In order to ensure regular turnover, consecutive terms of service should be limited.

Another check contributing to answerability is evident. To the degree that local governments provide a significant subsidy to the system, board decisions are checked in the annual appropriations process of the local governments. If the board's actions are not approved by local governments, the subsidy may be reduced. However, the effectiveness of legislative supervision, which one commentator observes to be "uneven and unpredictable," may also be questioned.¹⁵⁹

In any case this check is weakened to the degree the transit corporation receives earmarked tax revenue and need not rely on local subsidies. Earmarking also impairs the utility of the governmental budget and decreases legislative flexibility in adjusting expenditures to meet the changing conditions. This weakening of review of the board and increased governmental fiscal rigidity must be balanced against the several possible

¹⁶⁷ A. Walsh, supra note 3, at 3, 6.

¹⁵⁸ U.N. Memo, supra note 6, at 11.

¹⁵⁹ Mashaw, supra note 66, at 24.

benefits of earmarking taxes.

The first of these is the possibility of lower costs. The grant of earmarked tax revenue to the transit corporation may increase business efficiency because such will cause a reduction in both uncertainty with regard to system revenues and the possibility of local government interference in operation. Another benefit is noted by one commentator who maintains that earmarking tax revenues gives the individual voter greater voice in government spending. There is thus the possibility that tax increases earmarked for transit may receive stronger public support than tax increases for general state activity. On balance, since the rationale for using the public corporation form is increasing business efficiency, earmarking tax revenue for the transit system makes sense. Eleven of the U.S. transit systems in the study already enjoy this advantage.

Judicial review may play a role in determining whether the board has acted within the discretion delegated to it. However, as *Governance of Public Enterprise* points out, this is an extremely limited check on board action.¹⁶²

Two other factors which can be viewed as checks on an appointed board are the competence and professionalism of the board. The greater the board's competence and professionalism, the greater will be the credibility an appointed board enjoys. Several elements may contribute to building public confidence in the board. Clear lines of responsibility that are easily understood by the community will aid credibility. The qualifications of the board in terms of community and business experience and the avoidance of even the appearance of impropriety generate public confidence. A separate planning and auditing staff for the board will also contribute to this perception of board impartiality.

Affecting both the accurate reflection of preferences of the community and the achievement of the lowest cost production function is the question of information to the public. The community must be informed to be able to monitor policymakers. The community relies primarily on the media for information concerning policies adopted and the level of business accountability attained. This is a principal structural check on the discretion of the board. Guaranteed access to information is a necessary condition in order for the media to fulfill this role. In addition to media coverage, open meetings may lead to wider dissemination of information and encourage increased attendance, greater preparedness, and better organization at meetings by board members.

¹⁶⁰ J. MAXWELL AND J. ARONSON, FINANCING STATE AND LOCAL GOVERNMENT 223 (3d ed. 1977); J. THURSTON, supra note 44, at 140, 256.

¹⁶¹ Buchanan, The Economics of Earmarked Taxes, 71 J. Pol. Econ. 457-86 (1967). See Auster, supra note 51, at 427-28.

¹⁶² See N. Hamilton & P. Hamilton, supra note 2, at 125-28 nn. 173-98 (discussion of judicial review of the decisions of government corporation).

¹⁶³ The effectiveness of media coverage of the operations of government firms appears to have received little scholarly attention.

Of course, a host of arguments have been advanced for limiting the openness of governmental decisionmaking. These are summarized in Governance of Public Enterprise.¹⁶⁴ A degree of interference may simply have to be accepted, since the media are a critical check on the discretion of the board. A middle ground, whereby both board and committee meetings are presumed open with certain exceptions, may strike an acceptable balance. Open-meeting legislation in several states permits executive session for personnel matters like employment or discharge; matters involving contract negotiations, particularly collective bargaining and negotiations on the sale or purchase of real estate, where premature publicity would be detrimental to the community; and for matters involving the attorney-client privilege.¹⁶⁵ These exceptions, and the fact that in the transit corporation model business corporations are unlikely to be impeded since they are clearly delegated to management, should more than offset the impact of the public interference mentioned above.

V. SUMMARY

These observations suggest that the governance structure of an urban mass transit system should be designed to pursue two ultimate goals: the articulation of the preferences of its community and the satisfaction of those preferences at lowest cost. The transit corporation model presented in Section III seeks to address both of these objectives. Discussion in Section III established that in actual practice transit systems in the United States and Canada demonstrate similar severe shortcomings both with respect to the two ultimate objectives and in comparison with the transit corporation model. The principal advantage of the Canadian transit systems in comparison with the U.S. systems was the absence of substantial federal involvement and very little provincial involvement beyond provision of a subsidy. In Section IV, we presented some concrete recommendations to bridge the gap between the transit corporation model and the actual operation of the transit system revealed in the case studies.

On the whole, although the systems in both Canada and the United States deviate greatly from the ideal model, substantial improvements in the public transit industry can be effected relatively easily. We hope some of our suggestions will lead to a more cost-efficient transit industry which is responsive to the needs of the communities which it serves.

¹⁶⁴ See N. Hamilton & P. Hamilton, supra note 2, at 128-29 nn. 204-07 (discussion of sunshine laws in the context of public enterprise).

¹⁶⁵ See Little and Tompkins, Open Government Laws: An Insider's View, 53 N. Carolina L. Rev. 451, 475 (1975); Recchie and Chernoski, Government in the Sunshine: Open Meeting Legislation in Ohio, 37 Ohio St. L. J. 497, 508 (1976); Note, The Iowa Open Meeting Act: A Lesson in Legislative Ineffectiveness, 62 Iowa L. Rev. 1108, 1125, 1128 (1977).

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APPENDIX*

For the purposes of this article, case studies of ten mass transit systems in three Canadian provinces were undertaken. The information collected came through interviews with representatives of the system during the summer of 1978 and through a review of relevant planning documents, financial reports and legislation. All references to governing legislation or local conditions are to those we found in 1978.

Transit systems were selected from only three provinces due to cost and time constraints. The systems in Ontario, being the most geographically accessible, were chosen in order to reflect a varying range of population levels and urban transit conditions. Systems in Quebec and Nova Scotia were added for purposes of comparison with the Ontario systems. The information which follows is a brief overview of the data collected on the Canadian systems studied, and gives the factual basis for comparisons made in the article.

I. ONTARIO CASE STUDIES

In Ontario, as well as in Quebec and Nova Scotia, the federal government had little or no involvement with municipal transit. The provincial government and the local governments (municipal or regional) funded transit according to a series of guidelines set down by the provincial Ministry of Transportation and Communications. The guidelines took into account the fact that larger systems incurred less of a deficit, and set out target farebox revenue/operating cost ratios for different levels of population served. For example, Group 1 Cities (less than 100,000 population) were expected to make a 50 percent revenue/cost ratio, Group 4 Cities (over 1,000,000) top make a 72.5 percent revenue/cost ratio. Of the remaining amount, the province would pay half and the local government half.

However, the funding system included an incentive for high revenue/cost ratios. If the transit system could achieve a revenue/cost ratio higher

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All figures are from the Canada Year Book, 1978-79, Statistics Canada, taken from the 1976 census. Census Metropolitan area figures are given where applicable. It these figures are not applicable, Incorporated City or Town figures are given.

than the target, the province would continue to pay the same subsidy, thus reducing the local government's share of the cost. If the transit system made less than the target ratio, the province paid the same amount and the local government's share increased. Therefore, the local government had a strong incentive to make sure the transit system achieved a high revenue/cost ratio.

Other subsidies given under provincial legislation included a seventy-five percent subsidy of all capital costs, and a "start-up" subsidy for the operating costs of the first year of a major transit facility. There was also a seventy-five percent subsidy of a "transportation needs study report" and a subsidy of all the costs of an experimental project. Apart from any policies implied in these subsidies, the province had little formal transit policy; a "low bid" rule on contracts had been introduced but was not enforced.

II. Systems Studied in Ontario

Population 56.032

1. Kingston

Kingston Transit was operated by the city's Public Utilities Commission under a city by-law passed in 1963.

2. Oshawa 107,023

Oshawa Transit was operated under *The City of Oshawa Act*, R.S.O. 1960 c. 160 by the Public Utilities Commission. Although situated in an area of regional government, it did not serve the region.

3. London 270,383

The London Transit Commission was operated under the City of London Act, S.O. 1951 c. 107. In 1978, the transit system was exceeding the target revenue/cost ratio for a city its size.

4. Mississauga

250,017

In 1978, Mississauga Transit was operating under an authority. It had received special consideration from the provincial government regarding its revenue/cost ratio since it had been experiencing very rapid growth prior to 1978.

5. Ottawa 304,462

OC Transpo was established under the Regional Municipality of Ottawa-Carleton Act, S.O. 1972 c. 126. It served the region, and also served part of Hull, its sister city in Quebec. Under the Act, the system had to serve a designated "Urban Transit Area," and could serve areas outside

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this area if the Commission agreed. Any deficit incurred by the system was borne by the communities served on a levy basis.

6. Hamilton 529,371

The Hamilton Street Railway Company was owned and operated by the regional government under the *Regional Municipality of Hamilton-Wentworth Act*, S.O. 1976 c. 84. Its scheme for regional service was much like that of the Ottawa system.

7. Toronto 2,803,101

As of 1978, the Toronto Transit Commission was operated under the *Municipality of Metropolitan Toronto Act*, R.S.O. 170, c. 295, and under the Act could agree to give service within twenty-five miles of Toronto. The T.T.C. had a large in-house staff, a high per capita ridership level and more political influence than any other system. In 1978, it had succeeded in having its target revenue/cost ratio reduced from 72 percent to seventy percent.

III. Systems Studied in Quebec

In 1978, the province of Quebec provided a minimum subsidy of forty-five percent of the deficit of any system. This could increase to a maximum of fifty-five percent if ridership increased, and a one percent rise leading to a forty-six percent subsidy, and so on. Aside from the ridership incentive, the province had no formal policies in effect.

Hull 60,691

The Outaouais Transit Commission, a regional system, was established under the Communauté Regionale de l'Outaouais Act, Statutes of Quebec 1969, c. 85. This Act and the Act for the Montreal system are almost identical. Both establish a voting system for the communities served by the transit system, with voting power tied partially to the extent of the deficit attributed to that community.

Montreal 2,802,485

The Montreal transit system operated under the Communauté Urbane de Montreal Act, Statutes of Quebec, 1969, c. 84. The Montreal system allowed management the greatest amount of freedom to make routing and volume of transit decisions without interference of any system studied.

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IV. Systems Studied in Nova Scotia

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Halifax 271,200

The Halifax Transit Corporation, the only system studied in Nova Scotia, received no provincial funding 1978. Provincial funding was conditional on the municipal governments' involved accepting regional government. The city funded the entire operating deficit and capital costs of the system.

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