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NORTHWEST TERRITORIES MUNICIPAL FINANCE

AND

SERVICES STUDY

A Comparative Analysis of Selected Municipalities

in the N.W.T. and the Western Provinces

SUMMARY, CONCLUSIONS

AND

RECOMMENDATIONS FOR FUTURE RESEARCH

Commissioned by Department of Local Government,
Government of the Northwest Territories, Yellowknife.

Conducted by Boreal Institute for Northern Studies,
The University of Alberta, Edmonton.

May, 1974

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LETTER OF TRANSMITTAL

May 15, 1974

Mr. Ray Creery
Director, Department of Local Government
Government of the Northwest Territories
YELLOWKNIFE, N.W.T.

Dear Mr. Creery:

I am pleased to provide these copies of the Municipal Study Report entitled, "*NORTHWEST TERRITORIES MUNICIPAL FINANCE AND SERVICES STUDY: A Comparative Analysis of Selected Municipalities in the N.W.T. and the Western Provinces.*"

The Boreal Institute for Northern Studies, The University of Alberta, believes the report to be important, providing valuable information which was not previously available. This report should be viewed as Phase I of the total research need, for this portion is the substance which could be accomplished within the allotted time-frame. Your attention is directed to Part IV, Chapter 8, "*Recommendations for Future Research,*" which I trust will be a useful guideline, should plans for related research be considered.

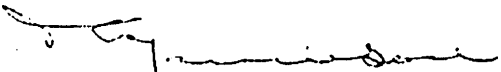
It is evident that little municipal research has been done in northern Canada, and we are pleased to have been associated with this breaking of new ground.

The real assistance provided by yourself and Mr. Macleod is indeed appreciated, for it was a meaningful contribution to the success of the study.

Should additional copies of the report be required, I will be pleased to make them available to you upon request.

The Boreal Institute for Northern Studies is committed to the orderly development of Canada's northland, and would welcome the opportunity to participate in future research projects.

Yours sincerely,


R.S. Jamieson
Assistant Director
Boreal Institute for Northern Studies

RSJ:cem

Enclosures

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PREFACE

This separate summary presentation appears as Part IV of Volume I of the report. Volume I also contains parts on background information and the detailed results of the study. Volume II contains compilations of the financial statements of the selected municipalities. These compilations constitute the major data source for the study.

FOREWORD

Much time and effort has been expended in research studies in the Northwest Territories. A very large percentage of the research studies have been in the realm of the physical sciences or in the field of physical resources, however, little has been done in terms of research into the most suitable organization of the human resources in the urban areas which hold a majority of the population. It is important to nurture the highest possible quality of life for all in this key area in spite of the many constraints and peculiarities of the situation. Through sound municipal policy the Territorial Government can achieve this goal. It is suggested that this study is a beginning in terms of the research necessary to develop such policy. Additional research, as outlined in Part IV, Chapter 8, should be considered if a full program for orderly municipal development is to be realized.

I would like to extend sincere thanks and warm appreciation to the Principal Researcher, Mr. Ian Wight, without whose efforts this study would not have been possible. Mr. Wight devoted his considerable talent, along with countless extra hours of endeavor, and we are grateful indeed for his immense contribution. To the Members of the Advisory Committee, as listed on the following page, is extended sincere appreciation for their time and the valuable advice provided. We are indebted to these scientists for making time available from their heavy workload.

The Boreal Institute is pleased to have been commissioned to carry out this research project, and trust that the results of the study will provide a basis for the great rush toward municipal development that is

likely to occur soon in the Northwest Territories.



R.S. Jamieson
Assistant Director
Boreal Institute for Northern Studies

STUDY TEAM

Project Supervisor: Mr. R.S. Jamieson, Assistant Director, Boreal
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Research Assistants: Mr. Alan D. Cooke, B.A.
Mr. W.C. Dunn

Part-time: Ms. Christina Fryer
Mr. R. Hobart, B.Com., M.B.A.
Ms. Pam A. Mathewson, M.A.(Hons)

Research Secretary: Ms. Anita Moore, Boreal Institute for Northern
Studies

All members of the study team were based at the Boreal Institute for
Northern Studies, The University of Alberta.

ACKNOWLEDGMENTS

This study could not have been completed without the assistance of numerous individuals. In conducting the study I have been blessed by the contributions of a very capable research team based at the Boreal Institute. Alan Cooke has been a most valuable right-hand man assisting in every stage and aspect of the project. To him in particular must go any credit for accomplishing the massive task of standardizing and compiling the financial data for the municipalities. Bill Dunn joined the project at short notice but played an important role especially during the stages of collecting the data in the field and its later preparation for analysis. Part-time assistance was rendered by Christina Fryer and Bob Hobart who prepared supporting materials, and Pam Mathewson who provided cartographic assistance.

On the secretarial end of the project, Ms. Anita Moore has been truly indispensable, particularly during the latter stages of the project. Other secretarial assistance was provided by Charlotte Mittelstadt, Frances Rowe, Sandra Locke, Brenda Knull, and Esther Kraychy.

Other resources of the Boreal Institute helped to make it a most conducive environment for researching the study. Mr. R.S. Jamieson, its Assistant Director, expertly handled all the administrative details, and Mrs. G.A. Cooke and her library staff assisted in the assembly of reference materials.

Conceptual guidance for the study was provided by the Advisory Committee of faculty members at The University of Alberta. Special mention should be made of the contribution of Mr. Denis DePape who,

besides participating as a member of the Committee, played an important part in getting the research rolling.

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In the N.W.T. and the Western Provinces, co-operation was extended by representatives of both municipal and senior governments and by officials of municipal associations. The value of the contribution by all of these individuals to the study cannot be overstated. Special thanks must go however to the municipal officials in the municipalities selected for detailed study. Their willingness to give so generously of their time to satisfy our quest for a great range of information is very much appreciated.

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To all who have contributed to the study may I extend a very sincere 'thank-you'.

Ian Wight
Principal Researcher
May 1974

PART IV - CHAPTER 7

SUMMARY AND CONCLUSIONS

A. INTRODUCTION

Purpose: The purpose of the study is to serve as a policy development tool. This is achieved by providing comparative information on the financial structure of municipalities in the Northwest Territories and the Western Provinces.

Objectives: The objectives of the study are to compare the nature and level of the financial assistance provided by the territorial and provincial governments to their municipalities; to identify the administrative and financial responsibilities of the municipalities in the various jurisdictions; and to evaluate the influence of special costs or difficulties or variations in service levels associated with the provision of municipal services.

Scope: The scope of the study is restricted mainly to detailed comparisons of the six tax-based municipalities in the N.W.T. (as at January 1, 1974) and comparable, or otherwise relevant, selected municipalities in the provinces. The scale of analysis is inter-municipal, emphasizing deviations from provincial or territorial average patterns. No attempt is made to probe very deeply into important aspects at the micro- (individual or intra-municipal) scale or the macro- (provincial/federal) scale although recommendations are made for future research at these scales. (See Chapter 8).

Method: Selection of the provincial municipalities involved a systematic consideration of relevant criteria. The comparisons were based

mainly on per capita revenue and expenditure calculations. Literature and field research methods were employed to assemble background data, and in particular to make a service level inventory. Much effort was expended on standardizing the municipal financial statements. Standardization of the financial data for the N.W.T. municipalities proved to be particularly troublesome and time-consuming owing to the absence of a standard reporting procedure. Future reviews of municipal finance policy in the N.W.T. could be expedited with much greater ease and rapidity if such a standard procedure was introduced immediately and rigorously enforced. The compilations of the financial statements of the municipalities studied are collected together as Volume II of this report.

Approach: Initially the precise financial responsibilities of the municipalities were determined. The importance of direct and indirect (hidden)* financial assistance from senior governments was identified. Possible cost differentials and the importance of various cost mixes (for example, labour, supplies, power, utilities etc.) on the delivery of municipal services was considered. These aspects were then considered in conjunction with indices of levels of service in order to evaluate variations in the per capita cost of providing municipal services, and the effectiveness of financial assistance.

Perspectives: It was deemed desirable to introduce some important perspectives prior to, and to aid in the interpretation of, the back-

*'Hidden' financial assistance is used to indicate situations where municipalities in one jurisdiction are partially or wholly absolved from financial responsibilities in a service area which in another jurisdiction draws greater municipal financial and administrative input.

ground information and results section of the study report.

- a) **General Perspective on the Study:** The Government of the N.W.T. requested this study to determine how the nature and level of assistance provided to the N.W.T. municipalities compared with the assistance provided to provincial municipalities. The study is, in effect, one response by the Government of the N.W.T. to a questioning of government policy stated in a joint brief of the city councils of Yellowknife and Whitehorse in May 1973. In the brief, much is made of the problems arising from the rapid growth which has been a feature of the N.W.T. in recent years. These problems have affected most of the N.W.T. municipalities and Yellowknife in particular. Information presented in this report suggests that the government's request for the study was timely, and this is especially the case with regard to Yellowknife's situation.
- b) **National Municipal Scene:** When the municipalities are viewed from the general national scale they are not cast in a very healthy financial light compared to the provincial and federal governments. This general municipal fiscal imbalance issue is larger and more basic than the inter-jurisdictional variations emphasized in this study.
- c) **Comparability:** There are considerable differences between the municipalities in the N.W.T. and those in the provinces.

The N.W.T. municipalities and those selected to represent the provinces, despite having similar populations and other broadly similar features, are effectively at two very different levels in their respective settlement hierarchies.

- d) **Miscellaneous Intangibles:** Certain other less tangible features of the N.W.T. municipalities underline the 'another world' character of the N.W.T. generally. Some of these are the influxes of wealthy southern urbanites with high service level aspirations, and, at the other extreme, relatively poor natives migrating from the surrounding regions. The high degree of transiency and general rootlessness of the municipal populations distorts the decision-making structure of municipal governments in the N.W.T. from that encountered in the south.
- e) **Historical:** Municipal development in the N.W.T. has been relatively recent by comparison with the provinces and dates essentially from the early fifties. The territorial municipalities have suffered the political cost of a continuing federal dominance over their affairs, but in the process they have gained absolution of large portions of financial responsibility for certain people services and have also benefitted from a relatively generous senior government capital assistance policy. There is still some potential to exploit further the unique relationship of the territorial municipalities, with the territorial government and the

federal government.

B. AGGREGATE ANALYSIS

The analysis of municipal financial data at the provincial and territorial level of aggregation indicated, in broad scene-setting fashion, the major trends and patterns of the topic under study. In all jurisdictions, between 1966 and 1971, the importance of taxation in the total revenue picture declined substantially. This was matched by increased transfers (grants) from the senior governments. The analysis pointed up the critical issue of the composition of conditional transfers. Most such transfers in the N.W.T. are allocated to traditional house-keeping municipal services only. Provincial municipalities receive the bulk of their operating conditional transfers for services to people such as health, welfare and education, rather than services to property. The per capita level of unconditional transfers to municipalities was the highest in the N.W.T. (in 1971). Total real transfers also exhibited a similar pattern. Grants-in-lieu of taxes revenue was of much greater importance in the N.W.T., compensating in large part for low taxation revenue. Sales of service was also significantly higher than levels present for the provinces.

The main expenditure pattern brought out in the aggregate analysis was that while education was the dominant category in the provinces, in the N.W.T. the greatest expenditures were made on public works, sanitation and waterworks and recreation services. General government expenditures by N.W.T. municipalities were also much higher than in the provinces. The debt charge load in northern municipalities was seen to be much less than in the provinces, reflecting relatively generous

capital assistance policies. Variations in the weight of financial responsibilities borne by municipalities in the N.W.T. and the province were most apparent in the areas of police, law enforcement and corrections, health and welfare, and particularly education. In all these cases the weight borne by N.W.T. municipalities was less. Variations due to the influence of greater northern costs and difficulties could not be ignored in per capita expenditures for street lighting, public works and sanitation and waterworks.

C. GENERAL ASPECTS OF MUNICIPAL FINANCE

Municipal Organization: The tax-based municipalities in the N.W.T. have basically the same power and procedures as do similarly classified municipalities elsewhere in Canada. The N.W.T. is, however, the least developed in terms of municipally organized population. Only about one-half of the N.W.T. population resides within the main municipalities, but this population rises to about two-thirds when hamlets (quasi-municipalities) are included.

B.C. has just over 80 per cent of its population municipally organized. This is the lowest proportion of the four Western Provinces. Regional districts in B.C. cater to the needs of the majority of the remaining population. In the other provinces virtually all the population is municipally organized (into urban, rural or other forms of municipality).

Some of the various special forms of municipal organization present in the provinces which could be usefully adapted for application in the N.W.T. in the future are the municipal districts in B.C. and the local

government districts in Manitoba. These forms could be developed in part to help formalize the emerging regional councils in the N.W.T. into effective stronger municipal units. Guidance in this task may also be forthcoming from the experience being gained in Northern Saskatchewan with the Northern Municipal Council.

Another application of district or regional municipal units could arise in the near future if and when gas production and processing installations become numerous in the Mackenzie Delta. Tax transfer devices, such as those used between the improvement districts and urban municipalities in Alberta, constitute an alternative, though somewhat less desirable, approach to district or regional municipal status. Further research of these municipal forms and devices, in an N.W.T. context, could prove timely.

Local Taxation and Non-taxation Revenue (Excluding Transfers): The lack in the N.W.T. of private and industrial property with a substantial assessment base markedly limits the taxable real property base. This feature places a greater onus on the territorial government to improve the revenue base through transfers or the assumption of all or part of the responsibilities normally carried out by municipalities. Rapid growth of the territorial municipalities brings problems of how to tax the main agents of change to compensate for the extra financial stresses contracted by the municipalities during boom conditions.

Widely varying practices in the valuation of property between (and within) the major jurisdictions precluded direct inter-jurisdictional comparison of taxable assessments or mill rates. Tax effort and tax burden have therefore proved intractable in other than rather broad

qualitative terms at the present scale of analysis, but these aspects should receive a high degree of priority in future research plans.

Little variation exists in other non-taxation revenue sources between the major jurisdictions except for one important, if possibly ephemeral, exception. Land development sales have been very significant for certain N.W.T. municipalities, often wildly distorting their "other revenue from own sources" category.

Grants-in-lieu of Taxes: These unconditional transfers are paid by senior governments and their agencies, or by large industries in some cases, and are in effect tax revenues. Crown property is relatively abundant in the N.W.T. and government grants-in-lieu are an important revenue source to all N.W.T. municipalities, but of negligible importance in virtually all of the provincial municipalities. The size of this revenue source in the N.W.T. accentuates the scope for niggling criticism by the municipalities. Generally, however, 'loss' of revenue due to this influence is not significant, especially if municipalities avoid special area or frontage tax levies and pursue a strategy of local improvement charges on projects with a life-time of over ten years. The major exception to the above statement lies in the realm of business occupancy taxes. Governments, or their agencies, generally do not pay grants-in-lieu for such taxes, and in the N.W.T., where numerous government offices replace what in the south would be mainly private office space, there is a much more tangible loss of revenue on this count. This problem should be circumvented in the near future if the split mill rate proposal to amend the Municipal Ordinance is approved by Territorial Council.

Because of the importance of grants-in-lieu of taxes revenue, there may be some advantage accruing to the N.W.T. municipalities through the relative lack of resistance of governments to increasing property tax rates. For the same amount of tax load, the territorial and federal governments have a much greater capacity to absorb any increases by comparison with a large number of small private property tax-payers. In addition, the N.W.T. municipalities tend to receive, at least as good as, and usually better treatment, in terms of grants-in-lieu payments, by comparison with that accorded to their provincial counterparts.

Industrial grants-in-lieu payments to municipalities in the N.W.T. have only been important at Pine Point. These payments were not formal grants-in-lieu since the mine was not officially taxable for a time. The mine is now within the municipal boundaries and is in the usual relationship to the municipal government.

Capital Assistance and Borrowing: Specialized regulatory and financing boards are absent from the N.W.T. municipal scene. There has been a proliferation of ad hoc policy decisions in the area of capital assistance. This 'policy' has had its merit in view of the great variability of circumstances faced by the N.W.T. municipalities. As well as its flexible feature, government capital assistance in the N.W.T. appears to have been relatively generous in comparison with provincial practice. (It is generally agreed for instance, that there is no need for the Alberta 'new town' type of legislation in the Territories.) Where outright capital grants meet only part of total project costs, the N.W.T. government organizes borrowing for the municipalities at prime

interest rates. In total, capital assistance appears to be a less visible but highly significant source of financial assistance to N.W.T. municipalities. The generous capital assistance aspect is in line with the federal government's policy to develop the North. The N.W.T. can be viewed in some respects as one large D.R.E.E. special area.

Little variation in the amount of control vested in governments over municipal borrowing occurs between the jurisdictions. In the provinces government control takes the form of dispensing agencies such as municipal finance authorities or local authorities boards.

Home-ownership Grants and Tax Credit Systems: All four provincial jurisdictions have some form of home-ownership assistance and/or tax credit scheme designed to reduce the property tax burden of homeowners and/or renters. No such scheme exists in the N.W.T. The home-owner grant does not conform to the general criteria with respect to what constitutes an intergovernmental transfer. It is paid to individuals rather than to municipalities but it can be viewed as opening up some convenient property tax room for municipalities. (This can be at the expense of other tax burdens such as sales tax, increased income tax, or health premiums etc.) In the process, however, it can generate inequities whenever different categories of property tax-payers are treated differently. It may accentuate any problems relating to lack of uniformity in assessment, and, depending on the exact nature of the system, it may not contribute significantly to reducing the regressiveness of the property tax. It may also be expensive to administer.

Tax credit systems make explicit use of income and generally achieve a greater degree of success in making property taxation less

regressive. Except for arrangements where such reduction in regressivity is achieved, it is difficult to find any merits in either system compared to alternative uses of the funds benefiting municipalities more directly. Some of these alternatives could be the assumption of greater financial and/or administrative responsibilities by the provinces in certain service areas, or the making of higher conditional or unconditional transfers. Such developments have in fact taken place in the provinces (e.g. Alberta) or have been requested by provincial municipal associations (e.g. requests in B.C. and Saskatchewan to replace future emphasis on home-owner grants with unconditional grants).

The impetus for home-owner grants in the provinces arose mainly out of the need to provide relief from the burgeoning education tax burden. The grants have also been used as a favour-gaining political tool by putting money into people's pockets in a very visible manner. Both of these arguments could apply to Yellowknife in the N.W.T. The grants could virtually silence the small but influential pocket of resistance to further municipal tax increases. It would be a cheap scheme, since relatively few home-owners would be involved, at least initially. Serious problems would arise, however, with discrimination against renters in unsubsidized accommodation. This problem would also occur by following the alternative route currently being proposed for the Territories, namely utilities subsidies. Perhaps the best alternative, as seems to be the preferred direction in the provinces, is larger unconditional grants to municipalities. Clearly, numerous options are open and careful research at the macro- and micro-scales, in addition to a municipal focus, is required before the most suitable approach can

be identified.

D. THE INTER-RELATIONSHIPS OF MUNICIPAL AND SENIOR GOVERNMENTS IN THE
PROVISION AND FINANCING OF MUNICIPAL SERVICES

Municipalities in the N.W.T. have generally been restricted in their activities to traditional housekeeping functions consisting mainly of services to property. By virtue in part of their late municipal development and the influence of the federal government, the N.W.T. municipalities escaped the experience in the provinces where municipalities contracted additional financial or administrative responsibilities in service areas which are now primarily under the control of the senior government(s). These service areas have been health and hospitals, social welfare, justice, policing and education. Although the trend in the provinces is now to rid or relieve the municipalities of most, and in some cases all, of the financial responsibilities associated with these functions, the N.W.T. municipalities still, in comparison with the provinces, can be deemed to be receiving significant indirect or 'hidden' financial assistance in these areas. This occurs because the senior government(s) deliver most of these services in the N.W.T., leaving the municipalities with little or no financial and/or administrative responsibilities. The large strides being made in the provinces are effectively eroding much of the relatively advantageous position of the N.W.T. municipalities in this regard. For certain service areas and municipalities (most frequently Yellowknife) the relative advantages have been eliminated or have been replaced by disadvantageous positions.

Health and Hospitals: In the N.W.T., the public health agreement between municipalities and the government involves financial responsibilities which, although very small in amount, exceed the level of responsibility experienced by the municipalities in certain of the provinces. In view of this development and the tediousness of administering the N.W.T. agreements, it may be timely to remove this small but irritating imposition on the municipalities.

Welfare: The N.W.T. municipalities have no financial or administrative responsibilities in the area of social welfare. This is rapidly becoming the pattern in the provinces, and the amounts involved are falling to very small proportions. The major exception is the continuing heavy burden being experienced by the high status municipalities in B.C. In such a comparison, the N.W.T. municipalities may be deemed to be receiving significant hidden financial assistance. In comparison with the other provinces, the N.W.T. municipalities are still in a relatively advantageous position but the advantage is small and decreasing.

Policing and the Administration of Justice: These areas, and particularly policing, are the services in which all the N.W.T. municipalities receive the clearest substantial effective hidden financial assistance. Municipalities in the N.W.T. do not make any contribution towards the administrative, capital or operating costs of the court system in the N.W.T. Similarly, they make no contribution towards the cost of police services rendered by the R.C.M.P. In the provinces, all the larger municipalities and all the smaller municipalities (except in B.C.) face policing costs, and in some cases court system costs.

Education: In the N.W.T., the government finances all education expenditures except for a percentage of those costs incurred by school districts. This policy effectively places Yellowknife in a deficit position with respect to the provinces and the other N.W.T. municipalities. The property tax burden carried by Yellowknife in financing education has been, by comparison with the experience of provincial municipalities, relatively high in the past owing to a lower proportion of costs being covered by government grants to the school districts. This relative deficit position has been exacerbated by the absence of the effect rendered by the home-owners grant systems in the provinces. The other N.W.T. municipalities technically finance a portion of education costs in their community through a much lower fixed levy. The yield of this levy meets a negligible portion of the education costs incurred in these communities.

At the present time, all four provincial jurisdictions are making energetic moves to reduce further the burden of education costs from property tax sources. These developments are rapidly diminishing the case for arguing against hidden financial assistance. From a policy perspective, the provincial developments in this and other people service areas should be kept under careful review. Priority should be given, however, to removing the substantial inter-municipal discrepancies in the N.W.T. with respect to education financing.

Before leaving the area of services to people, it may be useful to indicate the desirability of leaving a small, if only token amount, of financial responsibility for these services with the municipalities. This is on account of the large gains to be realized by having not only

relatively cheap administration of very large sums of senior government monies, but also by having this administration performed by bodies which can be more sensitive to the local needs that preferably should dictate how the monies are spent. This approach could be developed to a greater extent in the N.W.T., particularly in the area of welfare. This would result in the need for large conditional transfers to the municipalities since they would have the responsibility for spending the money, rather than the territorial government. One potential problem in the N.W.T. could be the high degree of transiency and the small municipal populations mitigating against the existence of a sufficiently large and sufficiently skilled cadre of relatively permanent municipal officials.

To offset deficient municipal revenue, direct financial assistance is given for the more traditional housekeeping functions in all jurisdictions. This assistance is in the form of unconditional or conditional transfers. In both cases, the level of assistance in the N.W.T. is superior to the levels in the provinces. As in the realm of capital assistance, this outcome is to be expected in part because of the federal government's declared policy to develop the North.

Unconditional Transfers: All jurisdictions now provide unconditional transfers, although Saskatchewan has only done so since 1974. In each case, the base for the transfers is a flat per capita rate to all municipalities. The N.W.T. government pays by far the highest rate, although B.C. is gaining (1974, N.W.T. \$40; B.C. \$34). However, B.C. places an emphasis on unconditional transfers to the detriment of net benefit conditional transfers. In Alberta, unconditional transfers

have received a large boost as part of the Alberta Property Tax Reduction Plan. Previous to 1971, the amount allocated to unconditional transfers in this province was a proportion of the oil and gas royalties. Manitoba has recently instituted a system whereby the per capita rate of these grants will be tied in to the growth rate of personal incomes in the province. Saskatchewan has preferred, until recently, to go the sole route of conditional transfers, and also to stress relatively generous capital assistance, by provincial standards.

There seems to be a growing appreciation of the need to recognize the inequities of a flat rate of per capita unconditional grant. A progressive approach would be to include in the system recognition of variations in the composition and strength of the municipal tax base, and forces such as population growth and location features associated with the individual municipality. For the immediate present in the N.W.T., it would seem wise to retain the present simply administered per capita base in place of a change to a fixed percentage of operating expenditures or tax levies. Changes in the latter direction would require much deliberation and political haggling. Research to evaluate various alternatives of sophisticating the overall assistance procedures, and to develop more sensitive measures of municipal financial need, should be given high priority in the N.W.T.

Transportation: In common with the situation in the provinces, municipalities in the N.W.T. are responsible for the construction and maintenance of municipal roads, sidewalks etc. In the N.W.T. there is a comprehensive government assistance policy in this service area, and no distinction is made between arterial/secondary roads and local roads.

In the provinces assistance is restricted mainly to the former category, with varying degrees of assistance being present. This service is also an important capital assistance area and is particularly so in the N.W.T. Only Saskatchewan, of the four Western Provinces, appears to approach the N.W.T. in this respect. Overall, the N.W.T. municipalities seem to receive relatively favourable financial assistance in this area by comparison with urban municipalities in the provinces. Policy revision could be contemplated, however, to recognize significant cost and need differentials between the various municipalities.

Recreation: Municipalities in the N.W.T. clearly benefit from a high level of government operating and capital assistance in the area of recreation by comparison with the provinces. The main need in terms of policy revision is to develop more sensitive incentive aspects to reward special municipal effort in the field of recreation.

Water and Sewer Services: Although the N.W.T. is unique in providing a measure of operating assistance in this service area, it is in the degree of capital assistance to municipalities that quite striking differences with provincial practices are found. The relative generosity exhibited by the N.W.T. government is a natural response to the much more difficult challenge a municipality faces in the N.W.T. of operating a self-liquidating sewer and water utility. Net costs to a municipality in the N.W.T. still tend to be higher than those experienced in larger, southern provincial municipalities and further subsidization, possibly through the new Public Utilities Board, merits consideration as a potentially useful means of offsetting future municipal revenue deficiencies. There is also marked inter-municipal

variability in the costs of this service which should receive attention with a view to equalization of the burden.

E. DETAILED INTER-MUNICIPAL AND INTER-PROVINCIAL COMPARISONS

The N.W.T. and its tax-based municipalities receive central attention in the detailed comparisons. Only highlights of these comparisons are included here. Much important detail is omitted in favour of summary generalizations.

N.W.T.: One of the most distinctive features of the N.W.T. municipal scene is the extreme variation in the effective education expenditure burden. Yellowknife suffers a very great burden because of the presence of school districts, whilst the other municipalities pay out much smaller sums, in the form of a government levy. This procedure constitutes a significant imposition on Yellowknife, although it is questionable if the quality of education provided varies greatly between the municipalities.

Land development activity at Yellowknife, Hay River and Inuvik has been a consistent, distorting feature in comparisons with the provinces. Due to the probably ephemeral nature of this activity, reservations should be entered as to its continued important influence on these municipalities' finances. Depending on the accounting procedure, land development activity can also show up in capital expenditures or debt charges.

Health and social welfare expenditures are nil or negligible for all the N.W.T. municipalities. Except for Yellowknife, protective service expenditures relate mainly to fire protection costs. In

Yellowknife bylaw enforcement costs are important, but in no municipality are police contract costs present.

Apart from education levies and expenditures, and land sales and costs, great variability between the N.W.T. municipalities occurs in other areas. Environmental health expenditures appear to be a particular burden to Yellowknife and Fort Smith, while Hay River, and Inuvik recently, have a much higher level of recreation expenditures. Pine Point displays extremely large anomalies in both these service areas which are difficult to account for in detail. Particularly rapid growth, and ensuing capital project development, has meant a relatively high debt charge load for Yellowknife in comparison to the other N.W.T. centres. Inuvik with a roughly similar recent history of development has escaped such a burden.

In spite of, or because of, its special expenditure demands, Yellowknife has the healthiest tax base of the N.W.T. municipalities (excluding Pine Point). Hay River, Fort Smith, Inuvik and Fort Simpson follow in order of healthiness. Grants-in-lieu revenues are important in all municipalities but are particularly so in Inuvik and least so in Hay River. Transfers are also important in all municipalities. Unconditional transfers have dominated over conditional transfers in all centres except Fort Smith. The taxable assessment base used for the unconditional grant prior to 1973 mitigated against Inuvik and Fort Smith. The rate of growth of senior government transfers has been impressive in all the major municipalities, except for Inuvik.

In Yellowknife transfers per capita appear to have more than kept pace with per capita expenditure growth while taxation revenue per

capita has lagged. The difference has been made up through increases in sales of services revenue and in land sales. At the slow growth municipality of Fort Smith, transfers particularly, and, to a lesser extent, taxation, more than kept pace with expenditure growth (all in per capita terms). At Hay River, by contrast, where growth has been relatively paced and from quite a strong initial base, expenditures per capita appear to have just kept in line with the needs of the growing population. There is less likelihood here than at Fort Smith that large gains in the quality and level of municipal servicing were achieved. In Inuvik, taxation revenue per capita more than kept pace with expenditure growth, whereas growth in transfers lagged well behind. The rapid per capita expenditure growth present for Inuvik is probably as much, if not more, a reflection of a very low initial base, than marked advances in the level and quality of municipal services provided.

Fort Simpson has only just emerged from hamlet status and its municipal finance structure reflects its continued strong dependence on government assistance for revenue and the dominance of basic services in its expenditure pattern. Pine Point, with a similar population to Fort Simpson, and also recently incorporated as a village (town status from April 1974), displays widely contrasting municipal finance features by virtue of its prosperous role as townsite to the Cominco mine development.

Great variability in municipal finance structure is the most striking feature present for the six N.W.T. municipalities. This is a demanding environment for the development of policy which is flexible enough to cope with the variability. Policies involving uniform

treatment of all municipalities automatically favour certain municipalities to the detriment of others. It could be argued, for instance, that Fort Smith has benefited in terms of rates of transfers which have been pushed up by the needs of the higher growth municipalities, yet Inuvik has suffered by having above average growth problems. Inuvik also suffers from a standard percentage of road maintenance assistance since its unit costs for the same level of service are so much higher than the Great Slave Lake centres. Sophistication of assistance schemes is therefore required to more sensitively recognize inter-municipal variability and to avoid resorting to the other extreme of ad hoc decision-making.

F. WESTERN PROVINCES

Inter-municipal variability in municipal finance is also found in the provinces, compounding the problems of realizing a meaningful summary presentation. Inter-provincial variations appeared to be less marked than provincial/territorial variations however, and it is the latter which are stressed here.

Normally Yellowknife was found to be the only N.W.T. municipality to compare favourably with the provincial selections in terms of taxation revenue per capita. The other N.W.T. municipalities were raised in position by the inclusion of government grants-in-lieu (generally of minimal importance in the provinces) as taxation but the shortfall with the provincial municipalities remained significant. However, the discrepancies tended to diminish and in some cases to disappear when non-tax revenue was considered. Senior government transfers were found

to be a particularly important factor in bringing the N.W.T. municipalities closer to a par position with the provincial selections, as far as revenues were concerned. This pattern, in addition to the impressive rate of growth of transfers in the N.W.T., indicates that, generally, the present level of direct assistance is adequate, by comparison with the provinces, in helping to compensate for low tax bases in the N.W.T.

Regarding expenditures the smaller N.W.T. centres generally compared favourably with the southern selections but an exception had to be frequently made for Yellowknife. The favourable position of the smaller centres appeared to arise out of a net balance, in their favour, between the absence of certain financial responsibilities, present for the provincial selections, and the presence, in the N.W.T., of apparent additional costs in providing some municipal services. The question of additional costs experienced by the N.W.T. municipalities seemed to be an open one. The relatively high per capita expenditures for certain services in the N.W.T. (general government, recreation, transportation services, environmental health), consistently occurred in those service areas where government unconditional and conditional operating or capital grant support is an important factor. (The unconditional grant is channelled initially into administration.) The high expenditure levels could therefore be a function of the generous level of grants as much as of additional costs. The important advantage areas for the smaller N.W.T. municipalities tended to lie in the spheres of education and protective services, both hidden grant areas, and debt charges, where the favourable influence of the government capital assistance policy is felt.

Whereas the smaller N.W.T. municipalities emerge in a relatively favourable position compared with the southern selections, Yellowknife emerges in only a comparable, or similar position. This is brought about primarily through relatively large burdens overall in the areas of education, protective services, debt charges and environmental health. Yellowknife's relatively comparable position with its approximate equals in the south should not be taken as a prescription for complacency in the face of municipal requests for additional assistance. Special peculiarities abound on the Yellowknife municipal scene. For instance, there is the uniquely large (in the N.W.T. context) education finance burden. Rapid population growth has entailed not only large rate increases but also large absolute increases. Land development revenues have cushioned Yellowknife from harsher times to some extent in recent years, but this effect cannot be expected to persist. Arsenic water pollution scares brought heavy capital assistance from senior governments to Yellowknife without regard to the concomitantly heavy ensuring operating expenditures.

Regarding the smaller N.W.T. municipalities, although it appeared that in general they were in a favourable position in relation to the provincial municipalities, it must be recalled that many of the latter were in poor financial shape. There is in addition the introductory point concerning the national municipal scene where municipalities generally were deemed to be in a relatively poor financial position. Further sobering insights can also arise when the questions of service level comparisons and northern cost differentials are considered.

G. NORTHERN COST DIFFERENTIALS

A short survey of northern cost differentials pertaining to the following items was conducted: food and groceries; utility costs; northern allowance payments; house construction costs; and land servicing costs. The aim of the survey was to identify ranges in cost differentials which might have been expected to apply to the costs of providing municipal services. Different groups of differentials were obtained for each item. The nature of the cost mix of municipal services emerged as a useful interpretative concept. Different cost mixes elicit different cost differentials. Cost differentials were noted for locations within the N.W.T. as well as between the N.W.T. and the provinces. The nordic index system developed by Dr. L.E. Hamelin (Hamelin, 1972) was found to be a suitable preliminary base for formalizing composite cost differentials potentially applicable to municipal services. According to this measure of 'northernness,' only limited variation was noted between most of the N.W.T. municipalities and most of the northern provincial selections. Significant variations were noted to exist for Inuvik and Churchill, and the southern provincial selections. Because of the relative crudeness of the service level/service cost analysis, it is only with regard to these latter extremes that the influence of cost differentials can be qualitatively defined, with reasonable confidence in their validity. Any attempt to develop more sensitive measures of service level should be accompanied by a similar effort to identify relevant cost differentials for municipal services delivered at various locations in the N.W.T.

H. SERVICE LEVEL/SERVICE COST COMPARISONS

Meaningful municipal service level studies are few in number on account of numerous difficulties associated with them. Many qualifications were made in the service level/service cost analysis attempted in this study. These important qualifications, and many other important details, are omitted in this summary. The results of the analysis are included with a view to pointing out the nature of the difficulties to all the general practitioners in the field, and with the express hope that portions will not be plucked out of context to substantiate biased viewpoints. With feed back from the municipalities surveyed, the analysis may also form the basis for further and more rigorous research designed to help sophisticate the present assistance policy.

Street Lighting: This is a relatively 'clean' service area to account for but it is not an important item in municipal budgets. No strong evidence was found to indicate that the N.W.T. municipalities experience significantly higher costs in providing this service, or inferior service levels.

Garbage Collection: It was found difficult to identify any definite pattern in any of the data for this service, other than a slight indication that additional northern costs may be a factor where service levels are similar. Significant cost differentials were not evidenced by the data in its present form.

Fire Protection: Population size, and in particular a threshold of about 4,000, above which unit costs rose rapidly, was found to be an important factor for fire protection cost patterns. There were

indications that the smaller municipalities in the N.W.T. can obtain similar levels of service as their provincial counterparts for about the same per capita costs. However, for a relatively large centre such as Yellowknife, or in locations where service problems and costs are accentuated, such as at Inuvik, the pattern is different. In general, such communities must bear a greater financial burden than their southern counterparts to maintain a similar, adequate level of service.

Ambulance Service: Variable responsibility is the dominant factor in this service area, rather than variations in service level or the influence of special northern costs or difficulties. The only conclusion seemed to be that all municipalities, in the territories and the provinces, might benefit from a federal-provincial cost sharing program applicable to this service. Generally, any municipal expenditures in this area comprise an almost negligible portion of total expenditure.

Libraries: This service area is also not a major one in expenditure terms. As with ambulance services, little information was found to indicate marked discrepancies, between the provinces and the territories, in terms of costs or service levels.

Police and Bylaw Enforcement: Again, a large part of the variability in the apparent costs of providing these services relates to responsibility. Costs are incurred by N.W.T. municipalities only where the bylaw enforcement function is present. R.C.M.P. policing is free but the N.W.T. municipalities have expressed dissatisfaction with the level

of municipal policing carried out by the R.C.M.P.

Overall, the N.W.T. municipalities face smaller financial burdens for these services than municipalities in the Prairie Provinces. Also, from the service level measures employed here, it was difficult to conclude that large variations in service level exist between the N.W.T. and provincial groups. In B.C., where municipalities below 5,000 receive free R.C.M.P. services, no service level complaints were noted.

Public Works/Transportation Services: The available data evidenced a strong indication that most of the N.W.T. municipalities spend more in this service area to obtain a lower level of service in relation to the provincial selections. It was not possible to isolate the precise significance of the operating and capital assistance provided by governments, however. Operating grants may have inflated expenditures as much as higher northern costs. Generous capital assistance, the effect of which is buried in the municipalities' finances, may also act as a compensating factor for the apparent inter-jurisdictional differences. Varying priorities and necessities were noted as potential complicating factors. Intra-territorial cost differentials appeared to be significant in this service area and seemed to deserve attention in the form of variable percentage grant support.

General Government Services: Considerable interpretative difficulties were encountered in this service area. Apparently higher costs of providing this service were noted for most of the N.W.T. municipalities, however. It proved difficult to isolate the precise

sources of higher northern costs. Rather, it seemed that the higher levels in the N.W.T. accrued through increases spread across the whole list of the sub-categories studied for general government services. Some slight suggestions were noted, however, that salaries and employee benefits, office operation, advertizing, travel and telephone bills were above average contributors.

It is very difficult to establish meaningful service level measures in this area, but the ones included here indicated that Yellowknife, Hay River, and Pine Point provided high service levels for relatively low unit costs. Only Inuvik, by the measures employed here, was found to lie in a category of low service levels and high unit costs. On average, higher levels of expenditure in the N.W.T. seemed to be related to relatively high service levels. One possible influence behind this pattern is the high level of unconditional transfers provided to the N.W.T. municipalities. It is first applied to administration and large portions may reside there rather than being passed on to other municipal departments.

Recreation: This is another service area which can be characterized by murky responsibility patterns. It is also subject to highly variable financing practices - government grants, donations, user charges, general revenues. It seems to be accepted, in the N.W.T. and in the provinces, that the majority of recreation facilities and programs cannot be self-supporting. This has brought pleas for high levels of government assistance in the N.W.T., although this was not so prevalent for the provincial municipalities.

Certain special northern features bring about naturally greater

priorities for municipal recreation services in the N.W.T. Most of the N.W.T. municipalities do in fact tend to spend more on recreation services than their provincial counterparts, and part of the reason for this is relatively generous operating and capital assistance. In the provinces, municipal recreation appears to be almost a luxury service, higher levels of expenditure being present only for the more affluent municipalities.

Water and Sewer Services: This is a consistently large expenditure item in the budget of most N.W.T. municipalities. It is an area where intra-municipal service level differences are stark but where such differences are much less visible for all piped system service areas. Water and sewer services are also the object of high levels of capital assistance in the N.W.T. municipalities.

In the present analysis service level variations were assumed to be negligible, and attention was directed to revenues and expenditures. User charges resulted in a small range of average household costs and the N.W.T. municipalities were located about the middle of the range. Total revenues per capita indicated a much wider range however. The N.W.T. municipalities were positioned at the low end of this range, apparently because their low debt charge load obviated the need for high frontage tax revenues. Yellowknife emerged as the municipality with the lowest revenue per capita suggesting that increases in user rates would not be out of place.

In terms of operating expenditures, the N.W.T. municipalities displayed the highest levels of the selections studied. The lowest levels were present for northern locations with new, well-designed,

minimal maintenance systems. Most of the municipalities sampled in the N.W.T. and the provinces appeared to face significantly higher unit costs in this service area compared with large southern centres.

The significantly lower per capita debt charges present for the N.W.T. municipalities were taken to be a reflection of relatively generous government capital assistance in this area. As a result, although the operating costs of the N.W.T. systems are higher than in the provinces, the total expenditures, including debt charges, are in effect lower than for many of the provincial municipalities. It was suggested that the same influence was probably at work in other capital assistance service areas in the N.W.T.

The results from the inter-jurisdictional municipal finance comparisons indicated that the smaller N.W.T. municipalities seemed to be in a favourable position in comparison to the provincial selections while Yellowknife was in only a comparable, or similar, position. The service level/service costs analysis, because of the large number of qualifications, cannot purport to raise hard and fast conclusions. The analysis did suggest, however, certain situations where the N.W.T. municipalities appeared to be at a disadvantage in relation to the provincial selections from a service level/service cost point of view. At the same time, in other situations, the influence of relatively generous unconditional and conditional grant assistance, to the N.W.T. municipalities, was seen to cloud the issue of determining if they suffered from particularly greater costs or difficulties. Further research is required to definitely determine what is the stronger influence and to resolve what is,

according to the present research, an apparent tie position. The case for further, and greater, assistance to the N.W.T. municipalities (and to all provincial municipalities) is on stronger ground, however, when argued from the nation-wide fiscal imbalance position of municipal governments in relation to senior governments.

If it is the case that further assistance will flow from acceptance of the above position it becomes especially important in the N.W.T. to render the assistance in a proper manner. This can be achieved in several ways such as by devising more sensitive measures of need and developing incentive features. Foundation-type programs could also be operated whereby the government funds a service to a basic adequate level and municipalities decide their own priorities, and find their own funds, if further increases above that level are desired. Also, the special conditions may merit more than just matching grants by governments.

A dilemma arises in that further high levels of assistance to municipalities may suppress widely-based municipal initiative and the development of a sense of belonging to the community. Such commodities tend to be in short supply in the N.W.T. municipalities. High levels of assistance can also breed inefficiency in the management of finances in addition to promoting possibly wasteful allocation of financial resources. Intricate and sophisticated assistance and monitoring schemes will be required to subvert these dangers. (As one small example, it could be in the interest of the government to provide a portion of the further assistance in a manner which would encourage the raising of service levels in the poorer and less well-served areas

of an individual municipality. This could be achieved by varying the level of assistance provided according to those schemes which are planned to achieve large service level gains from low service level bases.) Much scope for resolving the dilemma also lies in the municipal political decision-making field, however, by promoting more powerful, but also more responsive and responsible municipal governments. This point also applies to all municipalities in Canada. The changing financial and decision-making process of municipal governments in the provinces in the past few decades has pointed up the need for extensive structural reforms. This literature (e.g. Plunkett, 1972) should be consulted with a view to implementation of the suggested reforms in the N.W.T. Because of the still early stage of municipal development and the unique relationship between the municipalities with the territorial government, and the federal government, there appears to exist in the N.W.T. a ripe environment for the implementation of these progressive reforms.

PART IV - CHAPTER 8

RECOMMENDATIONS FOR FUTURE RESEARCH

A. INTRODUCTION

In the course of the study, recommendations for future research have been stated or implied. The main recommendations are collected together and outlined in more detail in this chapter.

As stressed in the introduction, this study has focussed primarily on finances and services at the level of the municipality. The municipal level can be viewed as an intermediate, or meso-scale, level when it is realized that a municipality is also, at one and the same time, a component of the larger economic system which embraces senior governments and corporations, and, an aggregation of many separate households, businesses, industries, and individuals. If the municipal level is termed as meso- these other levels can be termed macro- and micro-levels respectively. To fully illuminate the comparative municipal scene it is also necessary to tackle analyses at these additional levels. On frequent occasions during the present study analysis had to be cut short because of the absence or paucity of results from research conducted at these levels. Future research strategy should place a high priority on tackling this issue, in addition to extending further effort on research at the municipal level. The following recommendations indicate some of the major areas of focus for future research at each level. Because of the strong inter-connections between the levels the division used may be somewhat artificial in places.

B. MICRO-SCALE RESEARCH

At the micro-scale, attention should be focussed on intra-municipal variations in municipal finances and services. The ability of individual tax-paying units to bear the burden of the property tax and user rate charges varies greatly within a municipality. Although mill rates may appear to be low by comparison with many southern municipalities this apparent advantage can be eroded at the individual level when other relatively large demands on available income, such as high food and utility bills, are considered. (This argument is set out in the taxation comparison presented in the Capital Budgeting Program, Town of Inuvik, N.W.T., dated September, 1973 and authored by Makale, Holloway and Associates Ltd. and A.E.S.L.). The degree to which higher salaries or wages or welfare payments offset these particular higher costs requires investigation for a sample group of tax-paying units within each municipality. On-going research, currently being sponsored by the government, into price variations and welfare levels in the N.W.T. communities, could be extended into the area mentioned above.

Marked intra-municipal variations in the level of municipal services provided also occur, most obviously in the area of water and sewer services, but also in several other less visible service' areas. Future government assistance schemes could be deliberately designed to encourage improvements in this sphere. Such a policy would require some research effort into devising intra-municipal service level measures. This research could be tied in to similar work at the inter-municipal level.

C. MESO-SCALE RESEARCH

Uniform assistance schemes developed in an environment of extreme inter-municipal variability inevitably benefit certain municipalities to the detriment of others. Efforts to resolve this undesirable situation in favour of a more sophisticated approach could begin through research into: the development of more sensitive measures of municipal financial need; inter-municipal real cost differentials for a range of municipal services; and service level measures.

Relative Financial Need at the Level of the Municipality can be articulated through recognition of the importance of certain variables. Taxable assessment per capita is a useful differentiating variable but its utility is increased if assessment is broken down into several categories, isolating in particular, industrial, commercial, government property on which grants-in-lieu are paid, and residential property. Generally those municipalities with a higher proportion of industrial assessment tend to be better off and require less assistance than those with a high proportion of residential assessment.

In addition to the effect of the detailed composition of the tax base the details of population growth can also be significant in sophisticating an assistance scheme. Rate of growth of population is an important variable since if population growth is rapid, growth in per capita expenditures or revenues may lag resulting in a deterioration of service levels. Assistance schemes should be designed to cover any such gaps if they arise during a period of rapid growth. Such schemes should be amended when more normal growth patterns resume. Although

the rate of population growth is important the absolute increases involved should also be worked into assistance schemes. Even if rates of population growth are similar, the municipality experiencing the greatest absolute increase requires more favourable treatment in any assistance scheme, if service levels are to remain in step with growth. Because of the importance of population characteristics in many assistance schemes it would be desirable if attention was given to more frequent census-taking possibly even at a rate of more than once a year.

It would also be useful to introduce measures relating to the pattern of household incomes present within a municipality. Elaboration of such measures could be accomplished in conjunction with the micro-scale research mentioned earlier where allowance would be made for such items as imputed income from resource harvesting and similar income from subsidized housing and utilities. Naturally, municipalities with a high frequency of relatively low household incomes (after allowance for factors such as those mentioned above) warrants a higher level of assistance than those with a high frequency of relatively high household incomes.

Inter-municipal real cost differentials in the provision of municipal services is another desirable factor for inclusion in a more sophisticated grants scheme. The approach developed by Dr. Hamelin (See Hamelin, 1972) could prove to be a useful base for a research study into the nature of these differentials. The criteria used in this work could be expanded easily by inclusion of the results of the current research into social welfare levels and also by inclusion of the

data being accumulated through the development of the computer program, associated with the recent water and sanitation study (A Review of the Proposed Water and Sanitation Policy with Recommendations on Implementation, prepared for the Government of the Northwest Territories, by A.E.S.L., August 1973).

Service Level Measures constitute further useful variables in a sophisticated assistance scheme. Their most obvious application can be found in the area of foundation programs where senior government assistance is provided to maintain the existence of a basic service level, but the municipalities fund any further desired increment in the level of service. A research study directed at this variable could be instituted through a formal review of the findings of the present study. Time constraints have precluded the raising of feedback on this report from municipal officials in the municipalities surveyed. It would be most useful to distribute copies of the report to these officials and to later solicit and document their comments. Particular attention could be given to insights obtained on service level features, and the review process could thus form the springboard into a specific study of service level measures.

One of the major difficulties encountered in the present study was the standardization of the municipal financial data for the N.W.T. municipalities. Many benefits would flow from the presence of a standard data-reporting system, not only in terms of financial comparability,

but also if the information necessary for the continuing research of those aspects mentioned above were incorporated into the reporting system. This is a matter of basic importance to future research and development of sound municipal policy and it should receive the immediate attention of the territorial government.

Certain forces are currently gaining strength in the N.W.T. which make it timely to initiate research into the most suitable forms of municipal government by which to respond to these forces. The proliferation of resource developments in a relatively compact region, such as is emerging in the Mackenzie Delta at the present time, raises the need to consider the applicability of regional or district forms of municipal government. Some guidance in this task may be received from the experience with municipal districts in B.C. (such as Mackenzie, and probably Fort Nelson in the future), and the local government districts in Manitoba, the most recent example of which is Leaf Rapids. Tax transfer mechanisms as practiced between improvement districts and urban municipalities in Alberta may also suit particular situations.

The emerging regional councils of small native-dominated communities in the N.W.T. is another force requiring careful research attention to establish, first the desirability of, and, possibly as a second step, the best approach to, formalizing these councils into incorporated municipalities (the northern municipal council currently being developed in northern Saskatchewan may be of interest in this regard).

Additional forces are at work, in this context in particular, to spur research in this area. These are the impending land claims settlements and the possibility of more native reserves being set up in the N.W.T. This research can also be justified, however, in the wider context of the reform of the financial and decision-making process of municipal government in Canada. The growing literature on this topic (especially Plunkett, 1972) should be reviewed and interpreted in the light of possible application of the suggested reforms in the N.W.T.

D. MACRO-SCALE RESEARCH

The relevance of macro-scale research can be most easily appreciated by a consideration of the various approaches to promote home-ownership in the N.W.T. Many alternatives exist by which home-ownership could be encouraged. Though much less desirable than large front-end grants to encourage people to become home-owners, annual home-owner grants or tax credits reduce the property tax burden, which may be a discouraging factor. However, the tax burden could also be decreased by raising the level of conditional and unconditional transfers to municipalities or, by the senior government assuming greater financial responsibility for certain services. All these moves entail ramifications which would affect the property tax-payer eventually, through the burden of other taxes or impositions, such as income taxes, sales taxes, health premiums, etc. Similarly, although homeownership would also be encouraged by subsidized utilities, these subsidies involve costs in other areas, costs which may be economic or political, as in the case of further dependence on transfers from the federal government. Similar

arguments apply to other subsidies against higher northern living costs, such as food and freight rate subsidies.

There clearly emerges a need for research to determine the best allocation of financial resources in the N.W.T. to achieve a clearly stipulated set of long-term goals and objectives. This research would fall under the category of comprehensive social accounting. Preliminary work in this area has been undertaken by the Economic Staff Group of the Department of Indian Affairs and Northern Development (see Palmer, 1972, 1973). Most of this level of social accounting would focus on financial relationships within the N.W.T.

Macro-scale research is also required into the financial relationships between the N.W.T. and the outside world, particularly the rest of Canada. Studies are required to identify the whole rationale of transfers or grant assistance, not just as it affects federal/territorial matters, but also as it affects all intergovernmental relationships. The main question to be resolved is why should the majority of the revenues of senior government(s) be spent by lower levels of government, after the exercise of considerable control by the senior government(s)? This type of study is equally applicable to the situation in the N.W.T. of municipalities versus the territorial government, as in the situation of the territorial government versus the federal government.

Another important area of interjurisdictional macro-scale research relates to the issue of externalities. Rapid growth is presently a feature of the N.W.T. The growth brings benefits and costs. It is possible that the N.W.T. is experiencing more costs than benefits at the

present time, justifying a high level of federal transfers as a form of compensation for the social costs being borne by the N.W.T. For example, in some respects the N.W.T. could be viewed as providing a cheap, but burdensome, 'baby-sitting' service to many short- and medium-term southern transients. To resolve these important issues a wide-ranging study of the costs and benefits of growth in the N.W.T. is required. The study should aim to identify who or what region, municipality or group of individuals is bearing disproportionately high costs, or is reaping disproportionately large benefits. The study could also focus on possible control mechanisms such as regional income taxes or regional payroll taxes, to bring about the most desirable allocation of costs and benefits.

This separate summary presentation appears as Part IV of Volume I of the report. Volume I also contains parts on background information and the detailed results of the study. Volume II contains compilations of the financial statements of the selected municipalities. These compilations constitute the major data source for the study.

TD 27-53
Tabled on June 28,
1974

NORTHWEST TERRITORIES MUNICIPAL FINANCE

AND

SERVICES STUDY

**A Comparative Analysis of Selected Municipalities
In the N.W.T. and the Western Provinces**

VOLUME I

**Commissioned by Department of Local Government,
Government of the Northwest Territories, Yellowknife.**

**Conducted by Boreal Institute for Northern Studies,
The University of Alberta, Edmonton.**

May, 1974

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LETTER OF TRANSMITTAL

May 15, 1974

Mr. Ray Creery
Director, Department of Local Government
Government of the Northwest Territories
YELLOWKNIFE, N.W.T.

Dear Mr. Creery:

I am pleased to provide these copies of the Municipal Study Report entitled, *"NORTHWEST TERRITORIES MUNICIPAL FINANCE AND SERVICES STUDY: A Comparative Analysis of Selected Municipalities in the N.W.T. and the Western Provinces."*

The Boreal Institute for Northern Studies, The University of Alberta, believes the report to be important, providing valuable information which was not previously available. This report should be viewed as Phase I of the total research need, for this portion is the substance which could be accomplished within the allotted time-frame. Your attention is directed to Part IV, Chapter 8, *"Recommendations for Future Research,"* which I trust will be a useful guideline, should plans for related research be considered.

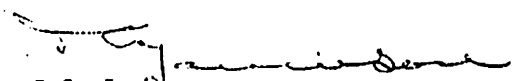
It is evident that little municipal research has been done in northern Canada, and we are pleased to have been associated with this breaking of new ground.

The real assistance provided by yourself and Mr. Macleod is indeed appreciated, for it was a meaningful contribution to the success of the study.

Should additional copies of the report be required, I will be pleased to make them available to you upon request.

The Boreal Institute for Northern Studies is committed to the orderly development of Canada's northland, and would welcome the opportunity to participate in future research projects.

Yours sincerely,


R.S. Jamieson
Assistant Director
Boreal Institute for Northern Studies

RSJ:cem

Enclosures

NORTHWEST TERRITORIES MUNICIPAL FINANCE AND

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FOREWORD

Much time and effort has been expended in research studies in the Northwest Territories. A very large percentage of the research studies have been in the realm of the physical sciences or in the field of physical resources, however, little has been done in terms of research into the most suitable organization of the human resources in the urban areas which hold a majority of the population. It is important to nurture the highest possible quality of life for all in this key area in spite of the many constraints and peculiarities of the situation. Through sound municipal policy the Territorial Government can achieve this goal. It is suggested that this study is a beginning in terms of the research necessary to develop such policy. Additional research, as outlined in Part IV, Chapter 8, should be considered if a full program for orderly municipal development is to be realized.

I would like to extend sincere thanks and warm appreciation to the Principal Researcher, Mr. Ian Wight, without whose efforts this study would not have been possible. Mr. Wight devoted his considerable talent, along with countless extra hours of endeavor, and we are grateful indeed for his immense contribution. To the Members of the Advisory Committee, as listed on the following page, is extended sincere appreciation for their time and the valuable advice provided. We are indebted to these scientists for making time available from their heavy workload.

The Boreal Institute is pleased to have been commissioned to carry out this research project, and trust that the results of the study will provide a basis for the great rush toward municipal development that is

likely to occur soon in the Northwest Territories.



R.S. Jamieson
Assistant Director
Boreal Institute for Northern Studies

STUDY TEAM

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Ian Wight
Principal Researcher
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PART I - CHAPTER 1

INTRODUCTION

A. PURPOSE OF THE STUDY

The purpose of this study is to provide comparative information of the financial structure and performance of municipalities in the Northwest Territories (N.W.T.) and the Western Provinces. It is intended that this information will aid in the development and rationalization of future government policy regarding financial assistance to the municipalities in the N.W.T.

B. OBJECTIVES OF THE STUDY

The major objectives of the study require a careful examination of both municipal revenues and expenditures. Concerning revenues, the prime objective of the study is to compare the nature and level of the financial assistance provided by the territorial and provincial governments to their municipalities. The importance of this assistance in relation to other revenues, particularly taxation, also receives careful consideration. With regard to expenditures, the first step is the delineation of the financial responsibilities of municipalities within each jurisdiction. The pattern of municipal expenditures for each service area is then considered with a view to evaluating the influence of special costs or other circumstances peculiar to the N.W.T. and the influence of variations in the level of service provided.

C. SCOPE OF THE STUDY

The scope of the study has been dictated both by the terms of reference and the severe time constraint.

The terms of reference restrict the comparison to the then tax-based municipalities in the N.W.T.; namely, Yellowknife, Hay River, Fort Smith, Inuvik, Pine Point and Fort Simpson. Initially it was decided that a minimum of six provincial municipalities were to be selected from the Western provinces for the comparison with at least one from each of the provinces. These provincial municipalities were to be, as far as possible, similar to the N.W.T. group in terms of major characteristics (eg. size, age, population, location, function, rate of growth) or to exhibit some other relevance to the N.W.T. municipal situation.

The time constraint limited the scope of the study to an intermediate level of analysis. Inter-municipal differences from provincial or territorial average conditions have received emphasis in this study to the detriment of other important levels of analysis. These levels of analysis should receive high priority in future research designs in order to fully illuminate the municipal scene in the N.W.T. For the present it may be useful to note that the inter-municipal differences highlighted here are matched by equally significant intra-municipal differences, which affect certain sub-areas of a municipality, or which permeate right down to the level of the individual. Different parts of a municipality experience different quantitative and qualitative levels of municipal services. In some important respects these varia-

tions seem to take on more extreme proportions in the N.W.T. municipalities. This same observation applies to the great variability in the ability of individuals living in the N.W.T. municipalities to meet the full cost of municipal services.

By focussing only on municipalities this study also gives little consideration to a larger and more abstract level of analysis, particularly the influence of variations in macro-economic factors across Canada, and the importance of differences between frontier and metropolitan regions. Examples of such factors would be, the differential burden of total taxation (rather than just municipal taxation); the cost differentials present for all goods and services (rather than just municipal services); and the variation in the amounts of real disposable income in the hands of individuals. The tax dollar, or the net dollar earned, or the dollar granted by government does not amount to the same thing in Toronto as it does in Inuvik. To establish the nature, degree and consequences of such differences might well be the objective of a broader scale of analysis than the one deemed to lie within the scope of this study.

D. METHODS AND APPROACH

The first task faced was the selection of the southern municipalities to be used in the comparison. Attention was directed to municipal units in the northern portions of the four western provinces and a list of about 25 potential candidates was initially compiled. It was estimated that approximately eight southern municipalities could be studied in detail within the time and cost constraints of the study.

These were selected from the twenty-five proposed on the basis of comparability with the N.W.T. group. The main factors used in the selection were demographic features (the size of the population, its recent growth, and the native component) and economic characteristics (company or resource town, government/institutional influence, agricultural service centre feature, and multifunction character). Several miscellaneous factors were also considered in the selection process. Since all the N.W.T. municipalities tend to be self-contained and separated from other centres by large distances it was felt to be important to avoid comparisons with southern centres which displayed a significant degree of interaction with significant populations in adjacent municipal areas. The influence of special programs or legislation on southern centres was considered to be a desirable feature for southern selections.

A brief review of the main features of the N.W.T. municipalities revealed their relatively small populations, widely varying rates of growth and the unequal importance of the native element in the municipal population. Except for Pine Point, the N.W.T. municipalities possess a strong multi-function type of economic base with government having a relatively important influence and agricultural-related activities being virtually absent. These features suggested the need to avoid too heavy a bias towards resource company towns, or agricultural centres in the southern sample. The group selected initially comprised of Fort Nelson (B.C.); High Level, Fort McMurray, and Fox Creek (Alberta); La Ronge and Hudson Bay (Saskatchewan); and Thompson and The Pas (Manitoba). Four additional centres were studied less

intensively for the useful perspective that they provided. These were: Mackenzie (B.C.); Camrose and Wetaskiwin (Alberta); and Churchill (Manitoba).

To permit the comparisons required in this study, a common base index also had to be selected. Per capita indices have been chosen for this purpose, placing a critical emphasis on accurate population estimates. The annual population estimates employed in the study appear in Table 5-17 at the back of this volume. The estimates are compromise positions between a variety of official and unofficial sources, modified where necessary with personal estimation based on fluctuations in growth trends.

Various methods of data collection were employed. In the early stages literature research was emphasized, supplemented by meetings with senior government officials in the provincial capitals and Yellowknife. The visits with these officials provided information on the comparability of municipalities and helped to assemble relevant legislation and annual municipal statistical reports. General information was also gathered on the prevailing status and trends in government policy of assistance to municipalities.

Copies of the budgets, financial statements and preliminary background material were obtained from each of the selected municipalities. A major portion of the study was devoted to the assembly and standardization of the financial data. In general the new Financial Information System for Municipalities, published by Statistics Canada, was followed as far as possible in the standardization procedure.

Fuller details on this aspect are given at the beginning of Volume II. Standardization of the financial data for the N.W.T. municipalities proved to be particularly troublesome and time-consuming owing to the absence of a standard reporting procedure. Future reviews of municipal finance policy in the N.W.T. could be expedited with much greater ease and rapidity if such a standard procedure was introduced and rigorously enforced.

The standardized compilations of municipal financial statements comprise the major data source utilized in this study. These compilations cover general revenues, grant or transfer analyses, general expenditures, and the source and application of capital funds. The data from these compilations have been assembled together in one separate statistical volume which accompanies the report (Volume II).

Once initial compilations of financial data had been made, pilot fieldwork was undertaken in Inuvik and Fort McMurray. These visits produced a checklist of the data to be collected during field visits to the other municipalities. The checklist was designed to facilitate the interpretation of the financial data. It covered: relevant aspects of municipal history; clarification of items in the financial statements; identification of hidden grants pertaining to assistance from government agencies, or legislation; information on population characteristics; and the main features of the economic base of the municipalities. The major portion of the list consisted of an inventory of municipal service levels designed to aid in the evaluation of the relationship between service levels and per capita municipal expendi-

tures on these various services. The list was checked against the opinions of municipal representatives, but others representing senior government bodies or resource companies were also interviewed where their influence was deemed important.

The initial step in the overall approach followed in this study has been to sort out the administrative and financial responsibilities of the respective municipalities in an attempt to identify the expenditures to be financed by municipal revenues. Once the responsibility mix had been clarified, the importance of direct or indirect financial assistance from senior governments was evaluated.

Such financial assistance, in the form of transfers, is viewed as a means of compensating for inadequate municipal taxation revenues or for unusually high costs of providing municipal services. Hidden grants and direct financial assistance are identified and viewed in the same context. Hidden grants constitute imputations of expenditures avoided by a municipality in situations where the senior government assumes all or part of the responsibility for a service which in another jurisdiction or another municipal unit would draw a greater degree of municipal financial responsibility. 'Hidden' grants are found primarily in the realm of services to people. N.W.T. municipalities have generally less or no involvement in these services by comparison with most provincial municipalities.

An attempt is made to develop some notions and parameters affecting the cost differentials experienced by northern municipalities in discharging their responsibilities for certain municipal services.

The relationship between these cost differentials and the various indices of service levels are expressed mainly in qualitative terms although some attempt is made at quasi-quantitative comparisons. Where applicable and possible the influence of senior government financial assistance is introduced and a qualitative assessment of its effectiveness is rendered.

In the course of the study certain interpretative issues were found to recur. It is felt that presentation of the related perspectives at this point may enhance the appreciation of the main contents of the report.

E. GENERAL BACKGROUND ON THE STUDY

The Government of the N.W.T. requested this study to determine how the nature and level of assistance provided to the N.W.T. municipalities compared with the assistance provided to provincial municipalities. The study is in effect one response by the Government of the N.W.T. to a questioning of the federal and the respective territorial governments' municipal policy in the Canadian North. This questioning was stated in a joint brief of the city councils of Yellowknife and Whitehorse presented to the Minister of Indian Affairs and Northern Development and the Commissioners of the Yukon and Northwest Territories on May 30, 1973.

In the brief much is made of the problems arising from the rapid growth which has been a feature of the N.W.T. in recent years. These problems have affected most of the N.W.T. municipalities and Yellow-

knife in particular. Information in this report suggests that the Government of the Northwest Territories' request for the study was timely, and this is especially the case with regard to Yellowknife's situation.

F. POLICY PERSPECTIVE ON THE NATIONAL MUNICIPAL SCENE

The present focus on inter-municipal comparison should not overlook the situation on the national scene where municipal governments emerge as the very poor relations of the provincial and federal governments.

In the past few decades Canadian municipalities have had to shoulder new responsibilities and have witnessed their traditional housekeeping functions expand at an ever-increasing rate. This has led to a constantly increasing annual rate of expenditure requirements but their revenue framework has remained excessively rigid, placing the municipalities in a financial dilemma.

The basic reason for the municipal dilemma is the fiscal imbalance which exists between municipal revenue sources and their expenditure responsibilities. This imbalance is depicted in Table 1-1. It can be seen over the period under review that the deterioration of the financial position of Canada's municipalities has continued, both exclusive and inclusive of senior government transfers, and the deficit position has constantly been worse than those of senior governments. Data in Table 1-2 indicate that in 1971 municipal governments were responsible for slightly more than 25% of total government expenditures, but had access only to 13 1/2% of total government revenues, (excluding transfers from federal and provincial sources). In the transfer process, the majority

TABLE 1-1

SURPLUSES AND DEFICITS OF ALL GOVERNMENTS
EXCLUDING AND INCLUDING INTERGOVERNMENTAL TRANSFERS

NATIONAL ACCOUNTS BASIS

CALENDAR YEARS 1961, 1966 and 1971

(\$ Millions)

	Federal	Provincial	Local
1961 - excluding intergovernmental transfers	+718	+144	-968
- including intergovernmental transfers	-410	-281	-128
1966 - excluding intergovernmental transfers	+1,895	+1,274	-2,144
- including intergovernmental transfers	+231	-174	-327
1971 - excluding intergovernmental transfers	+4,172	+1,442	-4,218
- including intergovernmental transfers	-176	-295	-729

Source: Extract from Table 2-4, The National Finances, Canadian Tax Foundation, 1972-1973, obtained from Statistics Canada "National Income and Expenditures Accounts."

TABLE 1-2

REVENUE AND EXPENDITURES OF ALL GOVERNMENTS

EXCLUDING INTERGOVERNMENTAL TRANSFERS

CALENDAR YEAR 1971

(\$ Billions)

	Federal	Provincial	Local	Hospitals	CPP & QPP	Total
Tax Revenue	15.51	9.01	4.03	-	1.11	29.66
Other Revenue	1.65	2.57	.73	.12	.38	5.45
TOTAL REVENUE	17.16	11.56	4.76	.12	1.49	35.11
Expenditures	12.99	10.14	8.98	2.81	.20	35.02
Surplus (+) or Deficit (-)	+4.17	+1.44	-4.22	-2.59	+1.29	+ .09

Source: Extracted from Table 2-1, The National Finances, 1972-73, Canadian Tax Foundation.

of which is conditional in nature, the municipalities are effectively at the mercy of the senior governments even though it could be argued that the transfer amount should be the municipalities' as a right rather than as an apparent concession by senior governments. From this fiscal imbalance perspective, the apparent contradiction of municipalities seeking both greater political autonomy and greater financial assistance from senior governments loses all substance.

The above discussion suggests the need for all senior provincial and territorial governments to attack this imbalance situation by working towards an emphasis on unconditional transfers and more formal revenue-sharing procedures. The Government of the N.W.T. already emphasizes unconditional transfers to municipalities and it is possible that the unique relationship between the municipalities, in combination with the territorial government and the federal government, could greatly facilitate the development of revenue-sharing procedures. (See also HISTORICAL PERSPECTIVE, this chapter.)

G. PERSPECTIVE ON THE COMPARABILITY OF THE N.W.T. MUNICIPALITIES WITH THOSE IN THE PROVINCES

When a jurisdiction with about a handful of established municipalities which cover only about half the population is compared with jurisdictions with hundreds of municipal units, and where virtually all the population is municipally organized, interpretative difficulties are inevitable. The N.W.T. municipalities are at the top of their settlement hierarchy while the selected provincial municipalities, although lying in the same population range and with broadly

similar features, lie well down their settlement hierarchy. A municipality like Fort Nelson in north-east B.C. is effectively a very small fish in a very big sea. Its accessibility to the "powers that be" in Victoria suffers through the filtering out of the available political clout from the top of the municipal hierarchy down. It could be argued that Fort Nelson would find itself in a much more advantageous position if it was located within the N.W.T. jurisdiction. There it would be on a par with Inuvik or Hay River and be much closer and more visible to the relevant decision-making authorities.

Considering the situation from another angle it has been indicated in discussions with municipal officials that Yellowknife believes, justifiably or not, to be on a par with other capital cities across Canada. If indeed Yellowknife is to be viewed in terms of an "Ottawa" or an "Edmonton," Hay River, Inuvik and Fort Smith are raised to the level of a "Calgary" and Fort Simpson to the level of a "Red Deer" or a "Lethbridge." Pine Point may be viewed in the same light as Thompson, Manitoba, which happens to be one of the few large urban units in Manitoba.

These observations almost render portions of the comparative nature of this study misleading, at best. Perhaps the most positive point that can be drawn from the above discussion is the need to avoid the undue reverence accorded to population levels as a basic standardization criterion. Just because Yellowknife has about the same population as Wetaskiwin or Camrose does not entail that each have similar needs or require similar treatment.

Miscellaneous Intangibles: That the N.W.T. is 'another world' is further suggested by consideration of other intangible factors.

Rapid growth of most of the N.W.T. municipalities is a phenomenon faced by an almost negligible portion of provincial municipalities. Also in the N.W.T. the composition of the mass of growth is flavoured by an important additional ingredient: as in the south so in the north, rapid growth tends to bring in wealthy urban-oriented outsiders with expectations based on the experience of large southern urban centres. The ensuing demands for sophisticated municipal services tend to be frustrated in part by the demands, generated by their presence, for the extension of basic municipal services, but are also frustrated by a more modest per capita revenue base than is present in the large southern centres. At the other extreme from the urban-oriented outsiders is the relatively poor native element migrating from the land and the small settlements to the larger municipalities. This segment of the population produces its own peculiar demands upon the municipality.

Partly on account of the above-mentioned growth patterns the N.W.T. municipalities seem to be particularly confronted by a large transient element which renders a large portion of the municipal populations relatively rootless. This feature can affect the responsiveness, accountability and representativeness of the municipal governments to an important degree. One important aspect of the high degree of transiency and rootlessness of the N.W.T. municipal populations is, of course, the very low level of home-ownership. This is an

additional factor complicating and differentiating the decision-making structure of municipal governments in the N.W.T. by comparison with those in the south.

The very strong influence of the senior governments on municipalities is another intangible element in the N.W.T. municipal scene. Governments have been cast in the role of the great provider in all aspects of development of the N.W.T. for so long that it has become a difficult role to shake off. Municipal governments in the N.W.T. have been constrained to view local government, to a greater degree than in the provinces, as a continuing process of extracting ever more assistance from governments rather than as a vehicle of proper self-government. The scope for governments to develop a positive incentive function has suffered. Correction of this trend should be emphasized in any new assistance policies developed by the senior governments.

H. HISTORICAL PERSPECTIVE

Certain of the points touched on in the previous discussion of interpretative perspectives are underlined in the following description and discussion of the history of municipal development in the N.W.T.

Under instructions from the Governor-General in Council, or the responsible minister, the North-West Territory Act provides the Commissioner-in-Council with power to make ordinances for the Government of the Territories respecting, among other matters, municipal institutions. This procedure is broadly similar to the pattern in the provinces where the British North America Act makes municipalities 'creatures' of the provincial governments. In terms of territorial

administration, however, much power resides with the federal government and this factor lends an important extra dimension to the process of evolution of municipal government in the N.W.T.

The first real pressure for local government in the N.W.T. arose in the late nineteen-thirties with the mining developments at Yellowknife and Port Radium. As a result of the substantial increase in population and level of economic activity, the territorial administration found itself increasingly confronted by the demands of a new white population for modern facilities and amenities. Throughout this part of the history of the N.W.T. the provision of such services tended to lag considerably behind the demand for them. In terms of the uncertainties of mining developments in a remote area, the lag may have been prudent, but it was manifested by a distinct reluctance to use public funds to provide even rudimentary forms of social overhead capital.

Although the demand for community services was greatest in the larger settlements of Fort Smith, Port Radium and Yellowknife, only the latter was large enough to gain a form of local government relatively early in the development of the Mackenzie District. The Yellowknife Administrative District, set up in 1939, consisted of a local trustee board. The board was initially dominated by appointed members until changes to increase the elected membership were made in 1946. In 1940, a public school district was established at Yellowknife. Further development of institutions of local government was favoured by the growing body of residents wanting to have a say in their administration. However, it was retarded by the lack of local tax bases large enough

(and well enough established) to finance the operations of local government. The nature of the problem was well appreciated by the N.W.T. Council, then dominated by federal civil servants, and it was generally hostile to pleas for administrative reform from residents during the period.

The war transformed the economic life of the area and the attitude of the federal government towards its responsibilities for development. In the early fifties, steps were taken to reform the make-up of the Territorial Council and to meet local demands for more control over territorial affairs. Municipal District status was conferred on Hay River and Yellowknife in 1953 and Fort Smith and Fort Simpson became local improvement districts in 1954. Measures were taken to increase the degree of financial competence and independence enjoyed by the territorial administration. In 1957, for instance, the North-West Territory Act was amended to make provisions for the territorial government to borrow money, partly to meet its own burgeoning demands for capital outlays and partly to lend to the municipalities. Money could be borrowed only from the federal government, partly on account of its jurisdiction over the natural resources in the N.W.T. This situation exemplifies the limited constitutional power and the even more limited de facto power which the territorial government possessed to significantly influence the course of development in the area nominally under its jurisdiction.

Following the 1966 recommendations of the Advisory Commission on the development of government in the N.W.T. the pace of municipal

development was significantly stepped up. Much of the resulting effort, however, has been concentrated in the small communities rather than the larger municipalities. There have been statements made recently to indicate that more attention will now be given to strengthening these larger municipalities.

As testimony to the rapid development of municipal government in recent years, it may be noted that in 1951 less than one-quarter of the population of the N.W.T. lived in organized communities, by 1961 the proportion had risen to about 35% and by 1971 it stood at just under 50%. At the time of writing, approximately half of the population lives within the six incorporated municipalities upon which this report concentrates. However, if the hamlet populations are included, the proportion would be approximately two-thirds.

Because of the control exercised by the federal government in the form of deficit grant funding, jurisdiction over natural resources, collection of personal income and corporate taxes, etc., the N.W.T. municipalities are still even more at the mercy of senior governments than provincial municipalities. At the same time, it may be argued that there are certain advantages in the relative proximity of the municipalities in the N.W.T. to the federal government. One eminent professor of Canadian Intergovernmental Relations views the territorial government's relationship with the federal government as being more comparable to a provincial-municipal one than to a federal-provincial one. Under these circumstances, much potential is viewed to lie in a strong partnership role between the territorial government

and the municipalities. There is also a suggestion that, at least at the present time, the gain from this partnership would be less if the N.W.T. achieved provincehood.

If such political gains (potential or otherwise) do not offset the political costs outlined earlier, other compensations to the northern municipalities may be identified. As indicated in the previous chapter, municipalities in the N.W.T. have been absolved of a large degree of the financial and administrative responsibility for many of the services normally handled by provincial municipalities. Such 'hidden grants' may be declining in magnitude in relation to the increasing assumption of such responsibilities by provincial governments, but in some cases they still remain significant. In addition, in the fifties, the change of attitude by the federal government toward the development of the N.W.T. meant substantial capital investment in physical and social infrastructure much of which was inherited by, or directly benefited the municipalities. The best example of this is the building of the 'model community' of Inuvik, where much of the community infrastructure was later handed over to the municipality as gifts or for token sums. It also appears that the territorial government has adopted the federal attitude through its relatively generous capital assistance programs. In conclusion, it may be stated that the strong involvement of the federal and territorial governments in the infrastructural and political development of the N.W.T. municipalities, renders any attempt to evaluate exactly how they fare in the realm of municipal finance by comparison with

provincial municipalities very complex.

I. ORGANIZATION OF THE STUDY

The study is organized into four main sections: introduction, background, results, summary and conclusions.

Following this chapter, but continuing in an introductory vein, is an analysis of municipal finance data at the provincial or territorial level of aggregation (Chapter 2). The analysis is done for two years, 1966 and 1971, in order that the broad trends and patterns present in the form of territorial or provincial averages may be identified. Apart from fulfilling one requirement of the terms of reference, the analysis is best viewed as a scene-setter for the information and results which follow.

The background portion of the report falls into two main sections. The first section (Chapter 3) discusses relatively general aspects of municipal finance in the N.W.T. in comparison to the Western Provinces. Within this section attention is directed to: municipal organization; municipal taxation and non-taxation revenue (excluding government transfers and borrowing); grants-in-lieu of taxes; and capital assistance and borrowing restrictions. Also within this section, and fulfilling in part, a specific requirement in the terms of reference, is a discussion of home-owner grants and tax credits provided by provincial governments to individual tax payers and renters.

The second section (Chapter 4) of the background portion of the report focusses upon grants or transfers from senior governments to municipalities, and the often closely interrelated question of the

division of service responsibilities between municipalities and the senior government(s).

The background information is fleshed out in the results portion of the report. This part is also in two main sections. The first section (Chapter 5) consists of a detailed comparison of the selected municipalities by jurisdiction. The N.W.T. municipalities are considered first and the inter-municipal variations in municipal finance are stressed. The provinces are then considered individually. In each case, the selected municipalities are first placed in perspective through a comparison with a random sample of municipalities in the same province for one year (1971). This provincial inter-municipal comparison is followed by one involving the selected provincial municipalities only and what is termed the N.W.T. inter-municipal block, placing emphasis on the jurisdictional averages.

The second results section (Chapter 6) deals with service levels and service costs. Some cost differentials are first of all developed from a survey of non-municipal sources. Municipal services are then considered systematically from a service level and per capita expenditure point of view. Comments are offered as possible explanations of differences. In this survey of municipal services, emphasis is placed on general government services, water and/or sewer system operation, and specific recreation facility operation.

The final portion of the report summarizes the findings, specifies the conclusions and offers recommendations for future research.

PART I - CHAPTER 2

AGGREGATE ANALYSIS

A. INTRODUCTION

In this chapter a general assessment is made of municipal finance data at the provincial or territorial level of aggregation. The assessment is carried out from Dominion Bureau of Statistics (D.B.S.) sources for the census years 1966 and 1971. The main intent of the chapter is to set the scene for the more detailed analyses of following chapters. Thus, the broad average patterns which are identified may be checked and refined. This process is particularly necessary in view of the qualifications accompanying the data employed in this chapter.

B. DATA CONSIDERATIONS

The N.W.T. aggregation comprises data taken from the financial statements of Yellowknife, Hay River, Fort Smith and Inuvik. These were the only full tax-based municipalities in 1966 and 1971 (school districts data are also incorporated, but Yellowknife is the only municipality affected). Municipal units in the provinces number in the hundreds while the populations embraced number in the hundreds of thousands. Great imbalance therefore exists between the N.W.T. and the Western Provinces, rendering strict comparisons hazardous.

The aggregations refer to gross revenues and expenditures. Gross expenditures include all current and capital expenditures. To avoid duplication in the calculation of gross expenditures, outlays for the acquisition of fixed assets are reflected at the point in time at

which the fixed asset is acquired rather than when any loan in this respect is repaid. This accounting procedure tends to distort the picture obtained from the N.W.T. because of the small statistical bases, in conjunction with the relatively high degree of costly capital project activity, found in this rapidly developing region.¹

Whereas, the vast majority of the population in each of the Western Provinces is municipally organized, in 1971 and 1966 less than half of the population of the N.W.T. was in the tax-based municipalities. As a result it is not valid in the case of the N.W.T. to use the territorial population total in per capita computations. This was the practice of D.B.S.. In the present analysis, the total N.W.T. municipal populations employed were 11,000 in 1966 and 15,000 in 1971.

The aggregate analysis is based on the old D.B.S. classification rather than on the new financial information system being increasingly employed in many jurisdictions. The dependence on the old system present in this chapter may complicate slightly comparisons with data presented in later chapters where the new system has been more extensively employed.

Certain information presented in this chapter is dated. This limitation is accentuated by the fact that three of the four Western Provinces have undergone changes in governing parties since 1971.

The following discussion is based on numerous tables (Tables 2-1

¹The presence of a distorting influence is evidenced by the particularly large gap, that exists for the N.W.T., between gross general municipal revenues and gross general municipal expenditures. The discrepancy is brought out most vividly for the 1971 per capita totals, for the N.W.T., shown in Tables 2-13 and 2-14.

to 2-18) constructed from published data by D.B.S. or its successor, Statistics Canada, in Local (or Municipal) Government Finance for the years in question (Catalogue Numbers: 68-203 and 68-204). Supplementary illustrative material is presented to aid in the interpretation of the 1971 patterns of the per capita estimates for revenues, expenditures and net conditional transfers (Figures 2-1 to 2-3).

C. REVENUE

Percentage Distribution: (Tables 2-1; 2-8) Over the five year period between 1966 and 1971 the percentage of total gross municipal revenue derived from taxation decreased substantially in all jurisdictions and was matched by increased transfers from senior governments. The balance, essentially local non-taxation revenue, remained relatively stable over the period.

Taxation comprised the lowest percentage source of revenue in the N.W.T. in both years, but when grants-in-lieu of taxes paid by the senior governments are included in the taxation category, the N.W.T. pattern does not appear to differ significantly from that in the provinces.

Concerning transfers from senior governments, in the N.W.T. unconditional transfers form a greater percentage of revenue than in any of the provinces. This is the pattern in both study years, although, as in the provinces, the importance of this category has declined slightly over time. This decline has been more than compensated for by large increases in the proportion of conditional transfers. By comparison with the provinces this increase has been much less marked, not only in terms of the rate of increase but also in percentage levels. An

appreciation of these differences may be obtained by reference to Tables 2-6 and 2-12 where the make-up of the conditional transfers is presented.

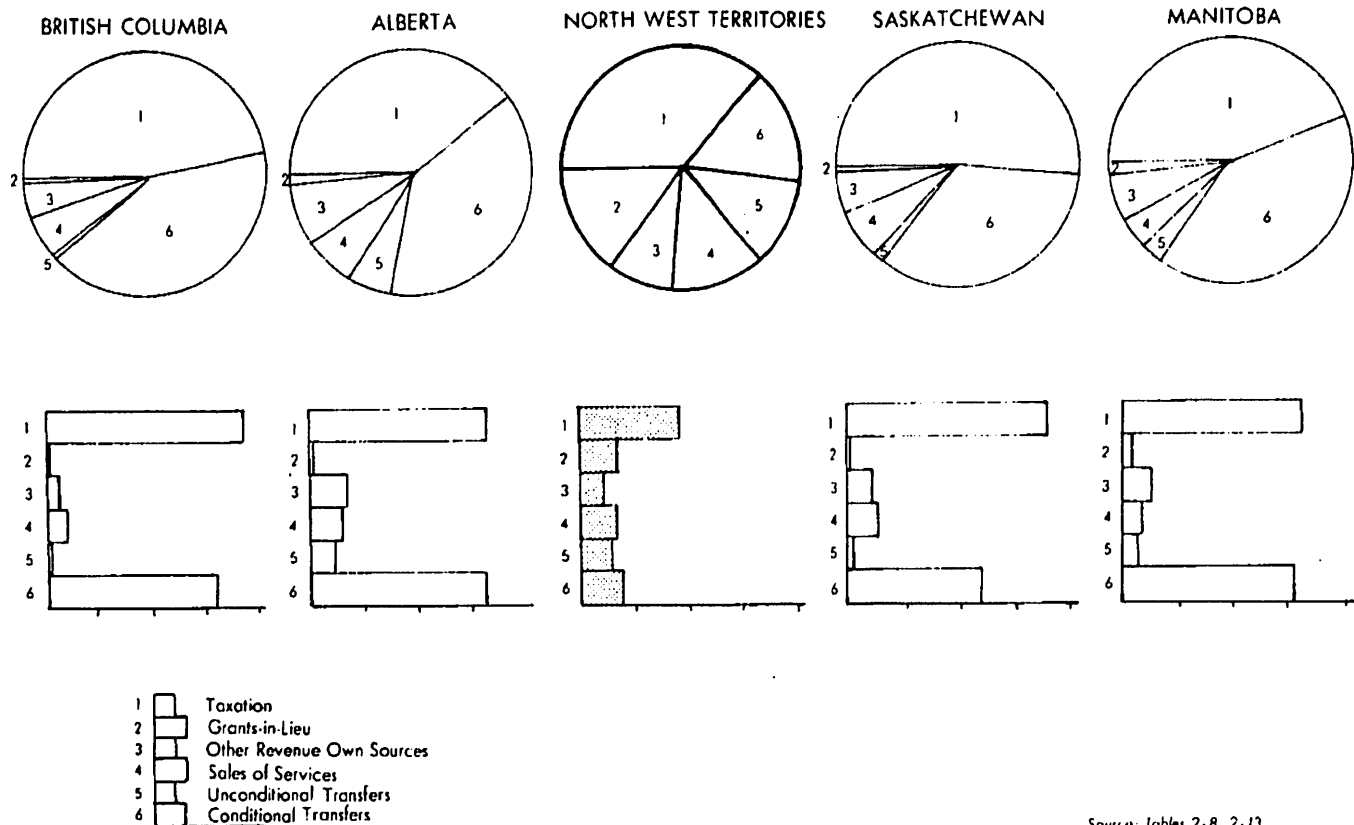
Conditional transfers in the N.W.T. are allocated almost totally to support traditional municipal services such as public works, sanitation and waterworks, recreation and community services. In the provinces, conditional transfers are primarily to assist municipalities or school boards in discharging their responsibilities in the fields of health, welfare and education. Municipalities in the N.W.T. have only limited or non-existent responsibilities in these fields, except for Yellowknife with regard to education.

Per Capita Variations: (Table 2-13, Figure 2-1) The rapidly evolving municipal scene in the N.W.T. is reflected in the almost three-fold increase in gross general revenue between 1966 and 1971. In the provinces revenues increased by slightly over two-fold.

Even after allowing for inclusion of grants-in-lieu, taxation per capita is significantly lower in the N.W.T. by comparison with the provinces. Certain other non-taxation revenue sources have reached significantly higher levels than in the provinces, most notably the sales of services. The bulk of the revenue in this latter category derives from water and sewer charges which tend to be set high in the N.W.T. municipalities.

Conditional transfers in the N.W.T. have increased at about the same rate as in the provinces. In absolute terms, however, they are significantly lower. Referring to Table 2-15 it may be appreciated

Figure 2-1
 PERCENTAGE AND PER CAPITA BREAKDOWN OF REVENUE, 1971



Source: Tables 2-8, 2-13

Figure 2- 2 PERCENTAGE AND PER CAPITA BREAKDOWN OF EXPENDITURE, 1971

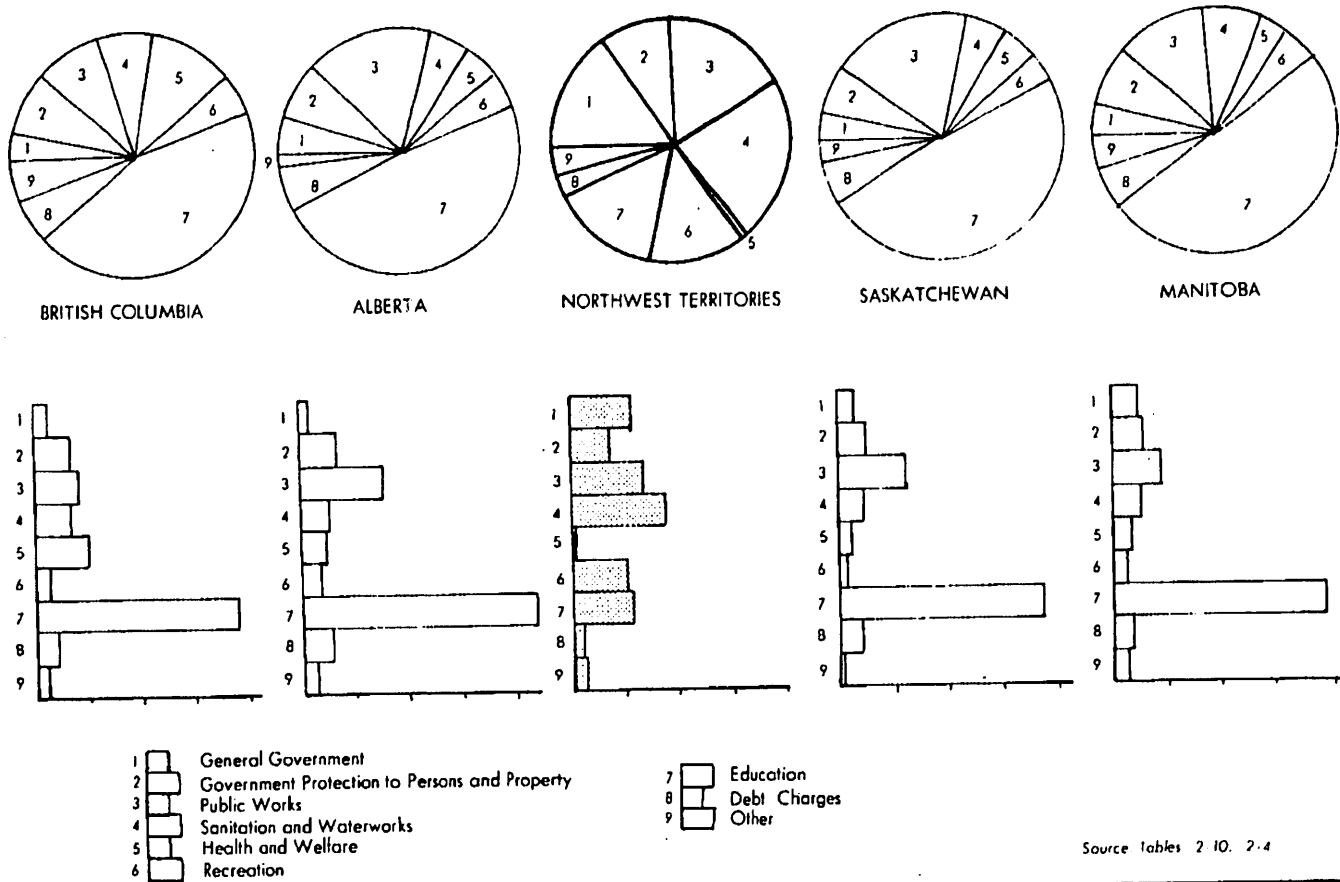
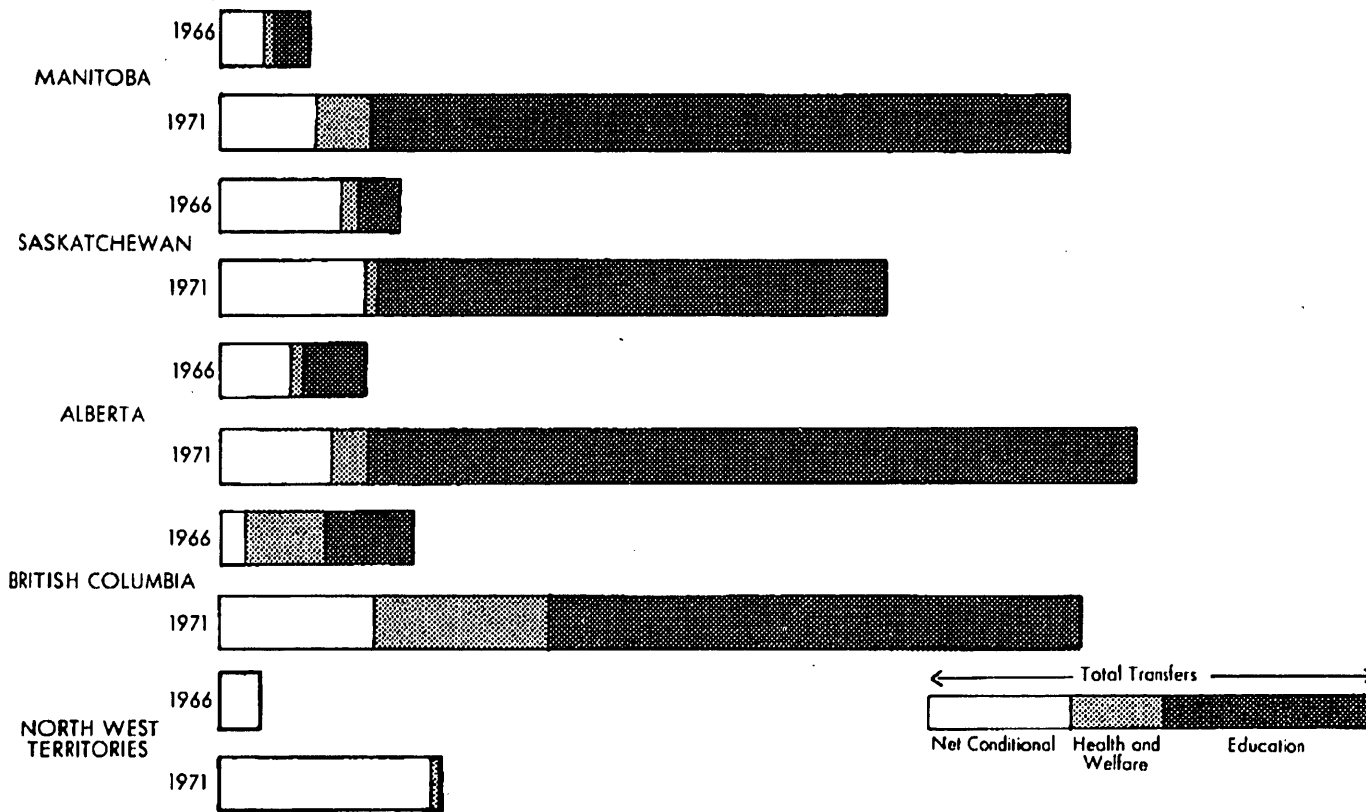


Figure 2-3 NET CONDITIONAL TRANSFER DOLLARS PER CAPITA 1966, 1971
(AFTER EXCLUSION OF EDUCATION AND HEALTH AND WELFARE TRANSFERS)



Source: Statistics Canada Local Government Finance (see tables 2.13.2-15)

that the vast proportion of conditional transfers to the provinces are for education, health and welfare. After removing these portions from the provincial totals a more comparable set of data is obtained (Table 2-16, Figure 2-3). In 1966 the level of net conditional transfers in the N.W.T. was about the same level as for Manitoba and British Columbia but significantly lower than the levels in Alberta and Saskatchewan. By 1971 net conditional grant support in the N.W.T. was well above the level for all the Western Provinces, particularly Manitoba and Alberta.

Unconditional transfers (excluding grants-in-lieu) in the N.W.T. in 1966 were up to the level of B.C. and Alberta and well in excess of the level in Manitoba. By 1971 the level of unconditional grant support in the N.W.T. had outpaced all the other provinces with only Alberta remotely approaching the N.W.T. level.

D. EXPENDITURE

Percentage Distribution: (Tables 2-4; 2-10) Expenditures on general government services in the N.W.T. attained significantly large proportions in terms of total expenditures in both years. It is suspected that their importance has been considerably distorted owing to the inclusion of either substantial capital expenditures or school district transactions in addition to the legislative and administrative components.² Allowance for this distortion would probably result in a reduced percentage which would still likely be in excess of (possibly over double) the average percentage of this item for the provinces.

²See footnote at the beginning of this chapter.

Expenditures on public works, sanitation and waterworks, and recreation and community services figure prominently in the case of the N.W.T. In the other provinces public works and education are the major expenditure categories. The difference between the N.W.T. and the other provinces is most marked in the case of education. The reason for this lies in the fact that Yellowknife is the only municipality which contributes significantly towards education costs in a manner broadly similar to southern municipalities.

Per Capita Variations: (Table 2-14, Figure 2-2) As suggested in the previous section, it is unlikely that the high per capita values for general government services in the N.W.T. truly reflect the average costs of running the municipalities. More representative values would probably be about half that of those given. Such an allowance would still leave the 1971 per capita figures for this service significantly greater than those found in the provinces.

Per capita expenditures on fire protection in the N.W.T. in 1971 were at about the same level as for the provinces although the 1966 value was significantly lower in the N.W.T.

In both years N.W.T. expenditures on police, law enforcement and corrections have been markedly lower by comparison with the provinces. This discrepancy reflects the very limited municipal responsibilities for these functions which are mostly handled by the territorial government. N.W.T. per capita expenditures in the areas of health and social welfare follow a similar pattern for the same reasons.

Street lighting expenditures in the N.W.T. by 1971 had reached the

highest level of all jurisdictions. This pattern is repeated in the relatively more complicated functions of public works, sanitation and waterworks, and recreation and community services. It seems likely that the main explanation for the significantly higher N.W.T. per capita expenditures for these functions is the greater cost and difficulties of providing these basic municipal services in the northern environment. It is possible that the rapidly developing nature of the N.W.T. municipal scene entailed that proportionately more capital expenditures were embraced in the figures, distorting the picture somewhat. This observation appears to definitely apply in the case of the residual 'other' category within protection of persons and property.³

Education expenditures in both years are significantly lower for the N.W.T. by comparison with the provinces. This pattern would be even more pronounced were it not for Yellowknife's substantial contribution to its school districts.

Between 1966 and 1971 per capita expenditures for debt charges in the N.W.T. rose by a large amount but remained at a level well below that found in the provinces. This may reflect a relatively generous approach by the territorial government in the area of capital project assistance. The limited provision made for reserves in the N.W.T. may be a further reflection of this approach. Alternatively, this practice may be caused by the genuine need for higher expenditures in the North to provide the basic services thus leaving little over for reserve purposes. In this regard it is interesting to note that total gross expenditures

³See footnote at the beginning of this chapter.

per capita for the N.W.T. in 1971 exceeded the levels of Manitoba and Saskatchewan and closely approached the level of B.C. This was the case despite the fact that the N.W.T. municipalities (except for Yellowknife in the case of education) have very limited or non-existent financial responsibilities in the areas of police, law enforcement and corrections, health, social welfare and education.

To round off this chapter, some recent percentage breakdowns of local government revenue and expenditure estimates have been included for all the provinces in Canada, and the N.W.T. The Canada average has also been included (Tables 2-17 and 2-18). Only percentage distributions are presented owing to doubts over satisfactory intercensal period population figures. Without the per capita figures, the magnitude of distortions, owing to widely differing municipal finance practices, becomes difficult to judge.

TABLE 2-1

GENERAL MUNICIPAL REVENUE - 1966

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
(thousands of dollars)					
TAXATION:					
Real Property	89,000	106,985	146,102	201,831	453
Business	2,222	3,444	6,452	6,013	12
Other	11,817	10,128	14,196	16,439	71
TOTAL TAXATION	110,047	121,017	170,550	224,253	536
GRANTS-IN-LIEU OF TAXES:	6,085	1,665	6,643	3,181	150
OTHER REVENUE OWN SOURCES:	9,611	13,421	37,486	27,019	85
SALES OF SERVICES:	1,277	2,177	6,883	7,020	8
CONDITIONAL TRANSFERS:					
Federal	602	1,493	4,939	7,480	-
Provincial/Territorial	15,074	30,556	33,143	65,729	89
TOTAL CONDITIONAL TRANSFERS	15,676	32,049	40,082	68,209	89
UNCONDITIONAL TRANSFERS:					
Federal	176	141	-	642	-
Provincial/Territorial	4,432	2,112	23,530	26,187	-
TOTAL UNCONDITIONAL TRANSFERS	4,608	2,253	23,530	26,829	-

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-2

PERCENTAGE OF GROSS GENERAL MUNICIPAL REVENUE - 1966

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
TAXATION:					
Real Property	61.1	62.0	51.7	56.6	44.7
Business	3.2	3.3	3.3	1.7	1.2
Other	8.1	5.9	5.2	4.6	7.0
TOTAL TAXATION	75.5	70.1	60.2	62.9	52.9
GRANTS-IN-LIEU OF TAXES:	2.6	1.0	1.7	0.9	14.8
OTHER REVENUE OWN SOURCES:	6.3	7.8	13.2	7.7	8.3
SALES OF SERVICES:	0.9	1.3	2.4	2.0	0.8
CONDITIONAL TRANSFERS:					
Federal	0.4	0.9	1.7	0.7	-
Provincial/Territorial	10.3	17.7	12.4	18.4	8.8
TOTAL CONDITIONAL TRANSFERS	10.8	18.6	14.2	19.1	8.8
UNCONDITIONAL TRANSFERS:					
Federal	0.1	0.1	-	0.2	-
Provincial/Territorial	3.0	1.2	8.3	7.3	14.4
TOTAL UNCONDITIONAL TRANSFERS	3.1	1.3	8.3	7.5	14.4
TOTAL GROSS GENERAL MUNICIPAL REVENUE	100.0	100.0	100.0	100.0	100.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-3
GENERAL MUNICIPAL EXPENDITURE - 1966

	(Thousands of dollars)				
	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
GENERAL GOVERNMENT:	4,892	10,334	16,798	14,113	294
PROTECTION OF PERSONS & PROPERTY:					
Fire	1,257	4,287	9,502	14,032	25
Police, Law Enforcement & Corrections	1,109	5,195	11,252	14,871	19
Street Lighting	1,214	1,040	2,131	1,282	12
Other	1,703	1,532	7,570	6,864	12
TOTAL PROTECTION OF PERSONS & PROPERTY:	18,283	12,054	30,357	47,049	68
PUBLIC WORKS:	34,337	49,363	68,223	45,901	197
SANITATION & WATERWORKS:	11,014	6,112	18,605	20,916	148
HEALTH:	1,771	8,000	16,917	4,349	7
SOCIAL WELFARE:	4,083	4,990	5,648	33,033	3
RECREATION & COMMUNITY SERVICES:	5,196	12,311	22,153	25,756	90
OWN ENTERPRISES:	4,179	4,701	4,630	1,698	85
EDUCATION:	53,250	78,704	126,837	314,942	272
DEBT CHARGES:	9,871	10,134	22,937	25,645	12
PROVISION FOR RESERVES:	3,951	3,481	3,037	11,693	-
OTHER:	4,289	2,947	6,551	4,372	106
GROSS GENERAL MUNICIPAL EXPENDITURES:	163,116	204,211	342,693	374,337	1,279

Source: D.B.S. (Statistic Canada) Municipal (Local) Government Finance

TABLE 2-4
PERCENTAGE OF GROSS GENERAL EXPENDITURE - 1966

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
GENERAL GOVERNMENT:	6.1	5.1	4.9	5.1	22.8
PROTECTION OF PERSONS & PROPERTY:					
Fire	4.4	2.1	2.7	3.7	2.0
Police, Law Enforcement & Corrections	4.4	2.5	3.3	5.2	1.5
Street Lighting	1.4	0.8	0.6	0.6	0.9
Other	1.0	0.8	2.2	1.8	0.9
TOTAL PROTECTION OF PERSONS & PROPERTY:	11.2	6.2	8.9	11.3	5.3
PUBLIC WORKS:	21.1	24.4	19.9	12.2	15.4
SANITATION & WATERWORKS:	6.8	3.0	5.4	7.2	11.6
HEALTH:	1.1	3.9	4.9	1.2	0.5
SOCIAL WELFARE:	2.5	2.4	1.6	8.8	0.2
RECREATION & COMMUNITY SERVICES:	5.0	6.0	6.5	6.8	7.0
OWN ENTERPRISES:	2.6	2.3	1.4	0.7	6.6
EDUCATION:	32.6	38.5	37.0	35.9	21.3
DEBT CHARGES:	6.1	5.0	6.7	6.9	0.9
PROVISION FOR RESERVES:	2.4	1.7	0.9	2.8	-
OTHER:	2.6	1.4	1.9	1.2	8.3
GROSS GENERAL MUNICIPAL EXPENDITURES:	100.0	100.0	100.0	100.0	100.0

Source: D.B.S. (Statistic Canada) Municipal (Local) Government Finance

TABLE 2-5
 CONDITIONAL TRANSFERS FROM THE FEDERAL AND PROVINCIAL GOVERNMENTS - 1966
 (Thousands of dollars)

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
FEDERAL:					
General Government	-	-	-	115	-
Protection of Persons & Property	-	-	-	67	-
Public Works	-	1,151	2,236	708	-
Sanitation & Waterworks	602	342	287	1,100	-
Recreation & Community Services	-	-	375	483	-
Other	-	-	2,041	25	-
TOTAL FEDERAL	602	1,493	4,939	2,480	-
PROVINCIAL/TERRITORIAL:					
General Government	-	360	-	331	6
Protection of Persons & Property	764	96	-	181	-
Public Works	1,667	18,378	9,989	2,565	51
Sanitation & Waterworks	-	81	-	1,908	-
Health	115	192	631	495	1
Social Welfare	2,261	3,012	2,877	26,738	-
Recreation & Community Services	40	149	41	1,530	21
Education	6,434	7,557	17,666	31,100	-
Other	4,173	731	3,939	881	-
TOTAL PROVINCIAL/TERRITORIAL	15,274	23,556	35,143	65,729	89

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-6
 FEDERAL AND PROVINCIAL CONDITIONAL TRANSFER AS A PERCENTAGE
 OF TOTAL EXPENDITURE BY FUNCTION - 1966

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
FEDERAL:					
General Government	-	-	-	0.2	-
Protection of Persons & Property	-	-	-	0.1	-
Public Works	-	3.6	5.6	1.0	-
Sanitation & Waterworks	3.8	1.1	0.7	1.6	-
Recreation & Community Services	-	-	0.9	0.7	-
Other	-	-	5.1	0.0	-
TOTAL FEDERAL	3.8	4.7	12.3	3.6	-
PROVINCIAL/TERRITORIAL:					
General Government	-	1.1	-	0.5	6.7
Protection of Persons & Property	4.9	0.3	-	0.3	-
Public Works	9.4	57.3	24.9	1.8	57.3
Sanitation & Waterworks	-	0.3	-	2.8	-
Health	0.7	0.6	1.6	0.7	1.1
Social Welfare	13.1	9.4	7.2	39.2	-
Recreation & Community Services	0.3	0.3	0.1	2.2	14.8
Education	41.2	23.6	44.1	45.6	-
Other	26.4	2.3	9.8	1.3	-
TOTAL PROVINCIAL/TERRITORIAL	96.2	95.3	87.7	96.4	100.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-7

GENERAL MUNICIPAL REVENUE - 1971

	(thousands of dollars)				
	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
TAXATION:					
Real Property	142,451	145,665	211,867	380,134	1,171
Business	10,293	9,965	15,113	12,315	77
Other	10,120	12,423	21,127	19,090	51
TOTAL TAXATION	162,864	168,053	248,107	411,539	1,299
GRANTS-IN-LIEU OF TAXES:	6,409	2,189	8,017	4,387	529
OTHER REVENUE OWN SOURCES:	21,499	17,923	52,120	36,702	313
SALES OF SERVICES:	14,899	20,845	44,300	47,719	451
CONDITIONAL TRANSFERS:					
Federal	2,237	2,426	4,006	12,504	-
Provincial/Territorial	151,195	111,276	268,999	332,483	559
TOTAL CONDITIONAL TRANSFERS	153,432	113,702	273,005	344,987	559
UNCONDITIONAL TRANSFERS:					
Federal	2,467	193	231	1,261	-
Provincial/Territorial	9,436	3,839	38,804	2,729	433
TOTAL UNCONDITIONAL TRANSFERS	11,903	4,032	39,035	3,990	433
TOTAL GROSS GENERAL MUNICIPAL REVENUE	372,353	327,453	686,148	849,344	3,584

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-8

PERCENTAGE OF GROSS GENERAL MUNICIPAL REVENUE - 1971

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
TAXATION:					
Real Property	38.3	44.5	34.1	34.1	32.7
Business	2.8	3.0	2.1	1.5	2.1
Other	2.7	3.8	3.1	2.2	1.4
TOTAL TAXATION	44.1	51.5	39.3	46.5	36.2
GRANTS-IN-LIEU OF TAXES:	1.7	0.6	1.2	0.5	14.7
OTHER REVENUE OWN SOURCES:	5.8	5.5	7.6	4.3	8.7
SALES OF SERVICES:	4.0	6.4	6.5	5.6	12.6
CONDITIONAL TRANSFERS:					
Federal	0.6	0.7	0.6	1.5	-
Provincial/Territorial	40.6	34.0	39.2	39.1	15.6
TOTAL CONDITIONAL TRANSFERS	41.2	34.7	39.8	40.6	15.6
UNCONDITIONAL TRANSFERS:					
Federal	0.7	0.0	0.0	0.1	-
Provincial/Territorial	2.5	1.1	5.7	0.3	12.1
TOTAL UNCONDITIONAL TRANSFERS	3.2	1.1	5.7	0.4	12.1
TOTAL GROSS GENERAL MUNICIPAL REVENUE	100.0	100.0	100.0	100.0	100.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-9
GENERAL MUNICIPAL EXPENDITURE - 1971

	Manitoba	Saskatchewan	Alberta	(thousands of dollars)	
				British Columbia	N.W.T.
GENERAL GOVERNMENT:	13,502	14,031	23,901	31,879	821
PROTECTION OF PERSONS & PROPERTY:					
Fire	9,552	6,846	17,558	21,386	171
Police, Law Enforcement & Corrections	11,898	9,224	25,743	36,364	32
Street Lighting	2,371	2,350	5,802	3,656	56
Other	3,655	3,655	6,938	10,893	286
TOTAL PROTECTION OF PERSONS & PROPERTY:	27,476	22,075	55,321	75,299	505
PUBLIC WORKS:	44,190	60,157	122,618	79,142	913
SANITATION & WATERWORKS:	27,614	20,125	40,548	64,102	1,231
HEALTH:	3,975	10,166	19,739	13,758	24
SOCIAL WELFARE:	12,493	3,051	15,272	96,000	-
RECREATION & COMMUNITY SERVICES:	15,851	12,370	32,614	47,831	742
OWN ENTERPRISES:	6,658	857	3,863	-	-
EDUCATION:	192,079	172,985	362,079	411,209	806
DEBT CHARGES:	20,235	19,017	46,437	53,171	155
PROVISION FOR RESERVES:	4,315	3,119	4,358	23,089	11
OTHER:	5,144	948	11,500	16,084	163
GROSS GENERAL MUNICIPAL EXPENDITURES:	373,482	337,901	738,252	913,564	5,374

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-10
PERCENTAGE OF GROSS GENERAL EXPENDITURE - 1971

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
GENERAL GOVERNMENT:	3.6	3.9	3.2	3.9	15.3
PROTECTION OF PERSONS & PROPERTY:					
Fire	2.6	2.0	2.4	2.7	2.4
Police, Law Enforcement & Corrections	3.2	2.7	3.3	4.0	0.4
Street Lighting	0.6	0.7	0.7	0.4	1.0
Other	1.0	1.1	0.9	1.2	5.3
TOTAL PROTECTION OF PERSONS & PROPERTY:	7.4	6.5	7.3	8.3	9.4
PUBLIC WORKS:	11.8	17.8	16.6	8.7	17.6
SANITATION & WATERWORKS:	7.4	6.0	5.3	7.6	22.9
HEALTH:	1.1	3.0	2.7	1.5	0.4
SOCIAL WELFARE:	3.3	0.9	2.1	10.5	-
RECREATION & COMMUNITY SERVICES:	4.2	3.7	4.4	5.3	13.4
OWN ENTERPRISES:	1.8	0.3	0.5	-	-
EDUCATION:	51.4	51.2	49.0	45.2	15.6
DEBT CHARGES:	5.4	5.6	6.1	5.5	2.9
PROVISION FOR RESERVES:	1.2	0.9	0.6	2.2	0.2
OTHER:	1.4	0.3	1.6	1.8	3.0
GROSS GENERAL MUNICIPAL EXPENDITURES:	100.0	100.0	100.0	100.0	100.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-11
 CONDITIONAL TRANSFERS FROM THE FEDERAL AND PROVINCIAL/TERRITORIAL GOVERNMENTS - 1971
 (thousands of dollars)

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
FEDERAL:					
General Government	352	-	-	-	-
Protection of Persons & Property	58	-	10	339	-
Public Works	474	140	561	512	-
Sanitation & Waterworks	823	1,839	2,301	2,890	-
Recreation & Community Services	3	12	-	4,182	-
Other	527	235	1,134	4,581	-
TOTAL FEDERAL	2,237	2,426	4,006	12,504	-
PROVINCIAL/TERRITORIAL:					
General Government	1,493	871	32	1,021	26
Protection of Persons & Property	161	690	1,115	5,218	3
Public Works	11,498	18,923	25,618	36,894	363
Sanitation & Waterworks	707	390	12	1,470	116
Health and Social Welfare	9,732	1,682	10,879	70,158	1
Recreation & Community Services	817	620	556	2,802	36
Education	126,384	86,994	228,317	212,000	-
Other	403	1,106	2,470	2,920	14
TOTAL PROVINCIAL/TERRITORIAL	151,195	111,276	268,999	332,483	559

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-12
 FEDERAL AND PROVINCIAL CONDITIONAL TRANSFERS AS A PERCENTAGE
 OF TOTAL EXPENDITURE by FUNCTION - 1971

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
FEDERAL:					
General Government	0.2	-	-	-	-
Protection of Persons & Property	0.0	-	0.0	0.1	-
Public Works	0.3	0.3	0.2	0.1	-
Sanitation & Waterworks	0.5	1.6	0.8	0.8	-
Recreation & Community Services	0.0	0.0	-	1.2	-
Other	0.3	0.2	0.4	1.3	-
TOTAL FEDERAL	1.5	2.1	1.5	3.6	-
PROVINCIAL/TERRITORIAL:					
General Government	1.0	0.8	0.0	0.3	4.7
Protection of Persons & Property	0.1	0.6	0.4	1.5	0.5
Public Works	7.5	16.6	9.4	10.7	64.9
Sanitation & Waterworks	0.5	0.3	0.0	0.4	20.8
Health and Social Welfare	6.3	1.5	4.0	20.3	0.2
Recreation & Community Services	0.5	0.5	0.2	0.8	6.4
Education	82.4	76.5	81.6	61.5	-
Other	0.1	1.0	0.9	0.6	2.5
TOTAL PROVINCIAL/TERRITORIAL	94.5	97.9	98.5	96.4	100.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-13
REVENUE PER CAPITA BY FIRM - 1966 AND 1971

	Manitoba		Saskatchewan		Alberta		B.C.		N.W.T.	
	1966	1971	1966	1971	1966	1971	1966	1971	1966	1971
TAXATION:										
Real Property	92.41	144.15	111.99	157.27	99.99	141.66	107.72	174.01	40.0	84.0
Business	7.53	10.42	4.08	10.74	6.46	8.80	5.04	5.65	1.2	5.7
Other	14.02	11.61	10.59	14.21	10.20	13.10	8.74	8.74	5.0	4.4
TOTAL TAXATION	114.26	166.17	126.67	182.21	116.56	165.66	119.68	188.39	45.0	94.0
GRANTS-IN-LIEU OF TAXES:	4.66	6.48	1.74	2.36	4.17	4.92	1.70	2.01	13.0	18.0
OTHER REVENUE OWN SOURCES:	9.98	21.76	14.04	19.34	25.40	32.02	14.43	16.60	7.40	22.0
SALES OF SERVICES:	1.33	15.08	2.28	22.51	4.71	27.21	3.75	21.84	0.8	32.5
CONDITIONAL TRANSFERS:										
Federal	0.63	2.26	1.56	2.62	3.38	2.46	1.32	5.72	-	-
Provincial/Territorial	15.65	153.00	31.99	120.14	25.02	165.24	35.08	152.19	8.0	40.0
TOTAL CONDITIONAL TRANSFERS	16.28	155.26	33.55	122.76	27.39	167.70	36.40	157.92	8.0	40.0
UNCONDITIONAL TRANSFERS:										
Federal	0.18	2.49	0.15	0.21	-	0.14	0.34	0.55	-	-
Provincial/Territorial	4.60	9.54	2.21	4.15	16.08	23.84	13.97	1.25	12.3	31.0
TOTAL UNCONDITIONAL TRANSFERS	4.78	12.03	2.36	4.36	16.08	23.98	14.31	1.83	12.3	31.0
TOTAL GROSS GENERAL MUNICIPAL REVENUE	151.28	376.80	180.65	353.54	193.53	421.49	190.29	388.79	88.0	254.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-14
EXPENDITURE PER CAPITA BY FUNCTION - 1966 AND 1971

	Manitoba		Saskatchewan		Alberta		British Columbia		N.W.T.	
	1966	1971	1966	1971	1966	1971	1966	1971	1966	1971
GENERAL GOVERNMENT:	10.27	13.66	10.80	14.07	11.45	12.68	10.20	12.59	23.70	37.20
PROTECTION OF PERSONS & PROPERTY:										
Fire	7.54	9.67	4.49	7.39	6.42	15.79	7.49	11.16	2.10	9.20
Police, Law Enforcement & Corrections	7.38	12.04	5.44	9.96	7.65	13.81	10.50	14.65	1.7	2.1
Street Lighting	2.30	2.40	1.72	2.54	1.44	3.12	1.22	1.67	1.0	1.0
Other	1.77	3.70	1.60	3.95	5.17	5.26	3.55	4.98	1.0	2.0
TOTAL PROTECTION OF PERSONS & PROPERTY:	18.98	27.80	13.25	23.83	20.75	33.98	22.75	34.47	5.9	31.5
PUBLIC WORKS:	35.65	44.72	52.18	64.95	46.53	75.32	24.53	36.23	17.1	65.0
SANITATION & WATERWORKS:	11.44	27.94	6.40	21.73	12.72	24.91	14.37	31.63	13.0	82.0
HEALTH:	1.84	4.02	8.37	10.98	11.56	12.13	2.32	6.30	6.6	1.7
SOCIAL WELFARE:	4.24	12.64	5.22	3.29	3.46	9.38	17.66	43.94	6.3	-
RECREATION & COMMUNITY SERVICES:	8.51	16.04	12.89	13.16	15.14	20.03	13.75	21.49	7.9	52.0
OWN ENTERPRISES:	4.74	6.74	4.92	0.93	3.16	2.17	1.44	-	7.5	-
EDUCATION:	55.29	194.32	82.39	186.77	86.58	222.42	72.09	188.23	23.7	58.0
DEBT CHARGES:	10.25	20.48	10.61	20.53	15.68	28.53	13.79	22.97	1.0	11.3
PROVISION FOR RESERVES:	4.10	4.37	3.64	3.37	2.08	2.68	5.71	9.20	-	0.8
OTHER:	4.45	5.21	3.08	1.02	4.48	7.06	2.33	7.36	8.2	11.7
GROSS GENERAL MUNICIPAL EXPENDITURES:	169.37	377.94	213.77	364.81	234.21	453.50	209.46	416.81	111.3	386.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-15
CONDITIONAL GRANTS PER CAPITA BY FUNCTION - 1966 AND 1971

	Manitoba		Saskatchewan		Alberta		British Columbia		N.W.T.	
	1966	1971	1966	1971	1966	1971	1966	1971	1966	1971
FEDERAL:										
General Government	-	.36	-	-	-	-	.06	-	-	-
Protection of Persons & Property	-	.06	-	-	-	.01	.03	.16	-	-
Public Works	-	.48	1.20	.37	1.53	.34	.38	.23	-	-
Sanitation & Waterworks	.63	.83	.36	1.49	.20	1.41	.59	1.32	-	-
Recreation & Community Services	-	.00	-	.01	.26	-	.26	1.91	-	-
Other	-	.53	-	.25	1.39	.70	.01	2.10	-	-
TOTAL FEDERAL	.63	2.26	1.56	2.62	3.38	2.46	1.32	5.72	-	-
PROVINCIAL/TERRITORIAL:										
General Government	-	1.51	.35	.94	-	.02	.18	.47	.5	1.8
Protection of Persons & Property	.79	.16	.10	.74	-	.68	.10	2.39	-	.2
Public Works	1.52	11.63	19.24	20.43	6.83	15.74	1.37	16.89	4.2	26.0
Sanitation & Waterworks	-	.72	.05	.42	-	.01	1.02	.67	-	8.2
Health (1966 only)	.12	-	.20	-	.43	-	.26	-	0.1	-
Social Welfare (& Health 1971)	2.14	9.85	3.15	1.62	1.97	6.68	14.27	32.11	-	0.1
Recreation & Community Services	.04	.83	.16	.67	.03	.34	.82	1.28	2.6	2.5
Education	6.70	127.89	7.91	93.93	12.07	140.25	16.60	97.04	-	-
Other	4.33	.41	.77	1.19	2.69	1.52	.47	1.34	-	1.0
TOTAL PROVINCIAL/TERRITORIAL	15.65	153.00	31.99	120.14	24.02	165.24	35.08	152.19	7.7	40.0

Source: D.B.S. (Statistics Canada) Municipal (Local) Government Finance

TABLE 2-16
NET CONDITIONAL TRANSFERS PER CAPITA
(AFTER EXCLUSION OF EDUCATION AND HEALTH AND WELFARE TRANSFERS)

	Manitoba		Saskatchewan		Alberta		British Columbia		N.W.T.	
	1966	1971	1966	1971	1966	1971	1966	1971	1966	1971
Total	16.38	155.26	33.25	122.76	27.39	167.70	36.40	157.92	8.0	40.00
minus Education Transfers	6.70	127.89	7.91	93.93	12.07	140.25	16.60	97.04	-	-
Equals	9.68	27.37	25.64	28.83	15.32	27.45	19.80	60.88	8.0	40.00
minus Health & Welfare Transfers	2.14	9.85	3.15	1.82	1.97	6.68	14.27	32.11	-	.10
Equals	7.44	17.52	22.49	27.01	13.35	20.77	5.53	28.77	8.0	39.10

Source: Tables 2-13 and 2-15

TABLE 2-17

GENERAL REVENUE ESTIMATES OF LOCAL GOVERNMENT
1972 (\$)

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada	N.W.T.
TAXATION												
Real Property	25.1	8.2	30.0	35.4	31.9	37.5	39.1	43.7	35.4	44.5	36.5	31.2
Business	8.7	2.4	1.8	-	2.5	5.1	2.8	3.0	2.1	1.5	3.5	2.2
Other	7.8	1.2	4.3	-	10.8	1.1	2.9	3.9	3.0	2.2	3.1	1.2
TOTAL	41.2	11.9	36.0	35.4	45.2	43.7	44.9	50.5	40.5	48.2	44.3	34.6
GRANTS-IN-LIEU (included in unconditional transfers)												
OTHER REVENUE OWN SOURCES	9.9	2.1	2.5	3.5	4.1	3.0	5.3	5.1	7.1	4.1	3.9	7.1
SALES OF SERVICE	6.3	3.1	6.1	13.3	2.2	3.7	3.9	6.4	6.2	5.3	3.9	12.0
CONDITIONAL TRANSFERS												
Federal	11.8	4.3	2.6	13.8	1.3	0.9	1.4	1.0	1.0	1.5	1.3	2.4
Provincial/Territorial	16.7	75.5	42.5	3.0	39.3	45.3	39.2	35.2	38.4	39.9	41.6	17.2
TOTAL	28.5	79.8	45.1	16.8	40.6	46.2	40.5	36.2	39.4	41.4	42.9	19.6
UNCONDITIONAL TRANSFERS												
Federal	0.9	0.6	2.8	-	0.3	0.8	1.0	0.5	0.4	0.5	0.6	8.6
Provincial	13.1	2.5	7.5	31.0	7.6	2.5	4.2	1.3	6.4	0.4	4.4	18.1
TOTAL	14.1	3.1	10.3	31.0	7.9	3.3	5.3	1.8	6.8	1.0	5.0	26.7
TOTAL GROSS												
GENERAL REVENUE	100	100	100	100	100	100	100	100	100	100	100	100

SOURCE: Statistics Canada, Local Government Finance, 1972 (Estimates)

TABLE 2-18

GENERAL EXPENDITURE ESTIMATES OF LOCAL GOVERNMENTS
1972 (2)

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Altn.	B.C.	Canada	N.W.T.
Education	2.7	71.1	50.4	.1	49.8	47.9	48.9	52.4	48.4	43.7	47.8	19.2
Public Works	26.5	3.7	6.7	17.3	8.6	11.5	9.8	17.4	14.8	8.1	11.6	18.8
Protection of persons & property	8.4	3.5	6.6	18.8	7.2	7.4	7.1	6.3	8.0	8.2	7.5	6.9
Sanitation & Water Works	23.9	10.5	8.2	33.9	8.7	8.2	9.1	5.1	6.3	10.2	8.6	19.8
Debt charges	13.7	4.6	5.6	6.1	10.2	5.1	5.1	5.3	6.2	5.3	6.6	3.5
General government services	10.5	1.8	4.1	9.0	6.4	4.0	6.7	4.1	3.9	4.4	4.8	21.8
Recreation & Community services	9.4	3.3	3.7	12.1	3.7	4.2	4.4	3.7	5.3	5.8	4.4	8.0
Social welfare	-	-	7.6	-	.3	5.6	3.2	1.0	2.0	9.8	4.1	-
Health	-	-	4.4	.1	.4	1.5	2.7	3.3	2.9	1.5	1.5	0.4
Own enterprises	2.7	-	.2	-	1.8	.9	1.4	.2	.9	-	1.0	-
Other	2.1	1.5	2.4	2.6	2.9	1.7	1.7	1.2	1.2	2.9	2.1	1.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Statistics Canada, Local Government Finance, 1972 (Estimates).

PART II - CHAPTER 3

GENERAL ASPECTS OF MUNICIPAL FINANCE IN THE N.W.T.

IN COMPARISON TO THE WESTERN PROVINCES ¹

A. MUNICIPAL ORGANIZATION

Municipal organization in the N.W.T. is supervised by the Department of Local Government and currently consists of the following classes: city, town, village and hamlet. (The remaining local government classifications are settlement and unorganized settlement). Hamlets do not have powers to levy taxes or dispose of land. Their main purpose is to aid in the development of local government expertise in preparation for the assumption of village status responsibilities. (Hamlets are classified as "quasi-municipalities" in the Canada Year Book). A settlement may become incorporated as a hamlet on the presentation of a petition by 25 or more residents to the government and the approval of the Commissioner. Hamlets receive only marginal attention in this report since the emphasis lies on the tax-based municipalities.

Pine Point and Fort Simpson are the only villages in the N.W.T. at the present time.² A village must have a population of over 500 and be raising or about to raise revenue by local taxation. Compared to towns and cities, borrowing by villages is severely restricted.

Towns may be formed when the population exceeds 1,000 and taxable assessment exceeds \$2,500 per capita. Inuvik, Fort Smith and Hay River

¹The main sources of the information presented in this chapter are the provincial or territorial legislation, Provincial and Municipal Finances, 1973, and feedback from municipal representatives in the various jurisdictions.

²Pine Point became a town and Frobisher Bay became a village in 1974.

are towns. Again, apart from the other criteria, only certain slight borrowing restrictions differentiate them from city status. Yellowknife is the only city in the N.W.T. at present. The qualifications for city status are a population exceeding 6,000 and a taxable assessment in excess of \$3,000 per capita.

The tax-based municipalities have basically the same powers and follow much the same procedures as do similarly classified municipalities elsewhere in Canada. They have fully elected councils and have powers to determine normal taxation and land disposition. At the time of writing just over half the population of the N.W.T. resided in these municipalities, with the proportion rising to two-thirds if hamlets are included. These statistics make the N.W.T. the least developed of all the provinces and territories in Canada in terms of municipally organized population.

About half of 1% of the total area of B.C. is incorporated municipally into cities, district municipalities, towns and villages, embracing in all more than 80% of the total population of the province. The majority of the balance of the population receives municipal type services through improvement districts or regional districts. The main purpose of the regional districts lies in providing certain area-wide services requested by participating members when subsequently authorized to do so by the province. So far the services provided are not extensive but those common to most regions are regional planning, community planning, contract services and local works. Because of the manner in which the N.W.T. population is distributed, this form of authority has little potential application in the N.W.T. The district municipality form of organization may be applicable soon, however, in an area such as Inuvik with its future gas production installations.

Legislation affecting the incorporation of municipalities in B.C. has recently been amended with the intent of tackling the problem of a relatively large portion of the population living in non-municipal areas just outside the central municipality. Those living in peripheral non-municipal areas have had most of the benefits of living close to a municipality while still only paying the very limited provincial property tax rate of 10 mills. Understandably this group has resisted any move by the central municipality to expand its boundaries to include them, and at the same time have refused to establish themselves in their own incorporated municipality. The new provisions within the Municipal Act favour the organized municipalities in the boundary extension question. Provision still exists in the Municipal Act for the rapid establishment of municipalities in conjunction with natural resource development (instant municipalities).

In B.C. a village is incorporated when the population of the area prior to incorporation is less than 2,500. Towns are incorporated when the population lies between 2,500 and 5,000. City status requires a population in excess of 5,000. Municipalities are supervised by the Department of Municipal Affairs.

The whole of the province of Alberta is organized into counties, municipal districts, improvement districts and special areas. Within the boundaries of these various divisions are located incorporated cities, towns and villages which are politically and administratively separate from the larger authorities. Improvement districts are the less developed rural areas of the province. The entire northern part of the province is divided into improvement districts, many of which are very large.

Each improvement district has the status of a municipality and levies the necessary property tax to aid in its administration. The districts are in effect administered by the province however, through the Field Services Branch of the Department of Municipal Affairs. Large tax transfers take place between these quasi-municipal districts and certain of the unitary municipalities, especially the new towns. These transfers are accounted for by various means but often they appear as an unconditional grant from the province to the new town.

Incorporation of a village requires the consent of at least 50% of the persons who would be proprietary electors in the village and the existence of at least 75 separate buildings, each continuously occupied as a dwelling. A town may be incorporated by council resolution when the population exceeds 1,000 and a city in the same manner when the population exceeds 10,000. Unitary municipalities (cities, towns, villages, municipal districts and counties) include approximately 95% of the population. When improvement districts are included the proportion rises to almost 100%.

The northern portions of the province of Saskatchewan are unorganized municipally and are the responsibility of the province under the Northern Administration Act. The remainder of the province is divided into rural municipalities, villages, towns, cities (classified as unitary), and the quasi-municipal local improvement districts. Village status requires as least 100 residents and a taxable assessment of not less than \$200,000. Town status requires 500 residents, and city status requires 5,000. Almost 100% of Saskatchewan's population is municipally organized even when improvement districts are excluded.

The province of Manitoba is organized municipally into rural municipalities within which cities, towns and villages are located, all

of which are politically independent of the rural municipal council. Unorganized territory includes local government districts which are operated by a resident administrator appointed by the province. The advisory councils of these bodies have almost all of the powers of normal municipal councils, the exception being borrowing restrictions which is never much of an issue.

Only three municipalities are located outside the geographical boundaries of rural municipalities. These are the cities of Flin Flon and Thompson and the town of The Pas. Unorganized territory surrounds Flin Flon while the other two are surrounded, at least in part, by local government districts.

Village status in Manitoba requires a population greater than 750 and a municipal taxable assessment of not less than \$750,000. Town status requires a population greater than 1,500 and a taxable assessment of over \$1,000,000. City status requires a population greater than 10,000.

Local Government District status as present in Manitoba may form a good base model for formal municipal organization of the 'regional councils' now emerging in the N.W.T. The L.G.D. legislation is under review at present and requires strengthening. This review process, in addition to the experience in Northern Saskatchewan of the new Northern Municipal Council, may provide useful input in the development of an approach to suit the special N.W.T. conditions.

B. LOCAL TAXATION AND NON-TAXATION REVENUE (excluding transfers)

Compared with the Western Provinces, the N.W.T. municipalities on an average raise substantially less revenue from taxation in per capita terms. This inferior position is ameliorated to quite an extent by

including grants-in-lieu as local taxation, but the shortfall, again in per capita terms, from the provincial levels is still large (Table 2-13). In the N.W.T. in 1971 taxation accounted for 36.2% of total revenue, grants-in-lieu 14.7%, other revenue from own sources 8.7%, and sales of services 12.6%. The latter two categories were much more important in the N.W.T. than in the provinces in percentage terms (Table 2-8) but the discrepancy was less marked in per capita terms (Table 2-13).

The major individual municipal revenue source in the N.W.T. in 1971 was real property taxation (\$84 per capita) followed by conditional transfers (\$40 per capita), grants-in-lieu (\$38 per capita), sales of services (\$32.50 per capita), conditional transfers (\$31 per capita) and other revenue from own sources (\$22 per capita).

A major hindrance to the development of local government in the N.W.T. to the level found in the provinces has been the lack of private and industrial property with substantial assessment. Such circumstances markedly limit the taxable real property base. Private home-ownership is discouraged by the high construction and home operation costs. Only 7% of the housing stock in the N.W.T. is occupant-owned non-rental housing. This compares with a Canada-wide average in 1966 of 63%.

Most of the industrial tax base is limited to the mines at Yellowknife and Pine Point. At Pine Point, the impending extension of the municipal boundaries to include the mine-site will mean an assurance of a relatively prosperous future for this municipality. However the importance of tax revenue from the gold mines at Yellowknife has been steadily declining in recent years. The other municipalities are not remotely as well off in terms of industrial assessment, the major "industry" being government. Hay River is something of an exception

having a relatively well-diversified economic base by northern standards.

Real property taxation is the major source of taxation revenue in all the N.W.T. municipalities as is the case in the south. In terms of total municipal revenues, however, property taxation generally forms a lower proportion in the N.W.T.

Before considering municipal real property taxation and related assessment practices, such taxation by the senior governments should be noted. The territorial government collects taxes from a few special taxation areas in the N.W.T., most notably at Norman Wells, and also a school levy (currently at 15 mills) from those municipalities without school districts. Although it may do so, the government has not, up to the present, collected the school levy from hamlets. The total property tax revenue derived in this manner is of negligible importance in terms of total revenues. It is estimated that for 1972-73 \$200,000 will be collected in territorial property taxes as against estimated total gross general revenues of \$85.1 million.

Of the four Western Provinces, only B.C. collects significant amounts in provincial property taxes. This is because a large part of the province is 'unorganized' municipally. There is no indication that this revenue in B.C. is directly passed on to adjacent municipalities. This has been the practice in Alberta where the province also levies a property tax in unorganized areas under the Special Areas Act and the Improvement Districts Act. The rates are fixed annually by the Department of Municipal Affairs. Municipalities interacting closely with such administrative areas receive tax transfer grants from the province to recognize the services performed which benefit the unorganized areas, e.g. Fort McMurray servicing workers at the oil sands plant which is located in the improvement district.

Assessment of real property in the N.W.T. follows closely, but not exactly, the practice of Alberta. Land is assessed at 100% of its current market value and improvements at 66.6% of the 1963 replacement value (according to the Alberta Assessment Manual). Statutory rates apply to power and communication lines, railways and pipelines. The definition of improvements includes machinery and equipment as taxable properties.

In Alberta non-farm land in an urban municipality is assessed according to market value at 65% of market value in the year of the general assessment. Improvements are assessed at various percentages of fair actual value as prescribed by regulation, with further differentials, depending upon whether the 1967 or 1959 provincial assessment manual is in use in the municipality. The 1967 manual replaces the manual issued in 1959 and has been used in all re-assessment programs carried out since November 1, 1967. Replacement costs are intended to reflect 100% of 1963 costs compared with the 1959 manual which was based on 75% of 1957 costs. The conversion factors in the 1967 manual indicate that, after the application of the statutory percentages to the fair actual value the resulting assessments on improvements in general would represent about 37 1/2% of current (1969) market values.

In B.C., taxation for school purposes in all municipalities and rural areas is levied on 100% of the assessed value of land (50% of actual value) and on 75% of the assessed value of improvements (37 1/2% of actual value). Taxation for general purposes in municipalities is levied on 50% of current land values and on any percentage up to 37 1/2% of current land values.

In Saskatchewan, land is everywhere assessed at 100% of fair value and, in practice, buildings are assessed at 60% of fair value (except in

Regina and Moose Jaw which use 45%). In Manitoba lands are assessed at their "value" while buildings are assessed at two-thirds of their "value".

Of the five jurisdictions, only B.C. and Alberta equalize assessments for school taxation purposes. Such equalization would be required in the N.W.T. if similar foundation programs were contemplated.

The lack of standardized assessments meant that unconditional grants were inequitably distributed among municipalities in the N.W.T. when these grants were based on assessment.

Responsibility for assessment varies by jurisdiction. The territorial government provides assessment services throughout the N.W.T. In the past the government levied a charge for this service on the municipalities through a reduction in the unconditional grant. Assessment is a local function in organized municipalities in B.C. except in the case of villages where it is a provincial function. In Alberta provincial assistance is given to all municipalities toward the cost of property assessment. This amounts to 25% of the cost of a general re-assessment if the assessment is done by a government approved assessor. The government also contributes 25% of the cost of annual assessments if made by a government assessor.

In Saskatchewan the province carries out the assessment function for all municipalities with populations of less than 15,000 (thus excluding Regina, Saskatoon, Moose Jaw and Prince Albert) free of charge. Grants of 35¢ per capita may be made to urban municipalities when a complete re-assessment is done. Manitoba is moving towards centralization of the assessment function. Most of the province outside of the major centres is under the jurisdiction of a provincial municipal assessor. Full cost is borne by the municipalities although the actual work is carried out by government personnel.

All jurisdictions provide for some exemption, either mandatory or discretionary or both, but these categories are not uniform in all cases, and may in fact vary within jurisdictions. In all jurisdictions schools, hospitals, churches, Crown lands, cemeteries, and public properties benefit from mandatory exemption. Homes for the aged are specified as exempt in Manitoba, Alberta and British Columbia. Charitable organizations, establishments or non-profit organizations benefit from either mandatory or permissive exemption in all jurisdictions except Saskatchewan. The N.W.T. municipalities are thus faced with relatively similar exemption situations to those found in the provinces.

Business taxes in the N.W.T. are presently levied only in Yellowknife and Hay River. Pressures exist to maintain the tax at low levels to compensate for the other additional costs encountered in the North and to avoid discouraging the opening up of new businesses. In partial recognition of these elements, the Municipal Ordinance of the N.W.T. restricts the business taxation rate to not more than half that of the general municipal rate. Much of the space which would normally be filled by private business in southern municipalities is taken by government in the North. Since governments do not pay business taxes, private businessmen in the N.W.T. experience higher levels of frustration on this score than is found in the south. However, legislation is currently proposed which would permit separate mill rates for various categories of property, the major division being between residential and non-residential property. If implemented, business taxes could be replaced by a non-residential mill rate which would embrace government owned and occupied properties.

The levying of a special tax on business is not mandatory upon all municipalities in B.C. Licensing of businesses, although common in all

jurisdictions is most intensive in R.C.

In Saskatchewan, the levying of a tax on business is mandatory. The same uniform tax rate that is applied to all property assessment is also applied to the business assessment. Saskatchewan is the only one of the five jurisdictions not to include most machinery, equipment and fixtures that provide services to buildings as real property. (In general machinery is not assessable except in mines, gravel pits and oil and gas wells).

In 1973, Alberta passed enabling legislation to permit its municipalities to utilize a differential split mill rate such as is currently contemplated in the N.W.T. The split mill rate is in existence in Manitoba and seems to have worked well except in the case of some small businesses that pay rates aimed at the larger stores.

In terms of miscellaneous taxation, there is provision in the N.W.T. municipal ordinance for the levying of a community service charge which appears to be a form of poll tax aimed at the transient element in the northern population. Although some use has been made of this tax in the past, it is not presently used by any N.W.T. municipality. A poll tax is still modestly used to a limited extent in Saskatchewan. A form of poll tax, called a personal tax, may be levied in Saskatchewan for the purpose of meeting a municipality's share of the cost of regional health boards.

Saskatchewan municipalities are authorized to levy a tenant tax. Cities and towns may impose a rental tax not exceeding 10% of the annual rental value of premises. As far as can be ascertained, however, no municipality in the province levies the tax.

No extraordinary special assessments and local improvement charges are used in the N.W.T. Similar comment applies to most forms of

non-taxation revenue. In all jurisdictions, mobile homes or trailers are liable to the real property tax, although in Saskatchewan and Manitoba they may be also licensed depending on the degree of permanency with which they are attached to the land. Depending on the date of the legislation in the other jurisdictions such property may produce revenue as a tax or as a license fee. Hay River and Yellowknife have recently taken advantage of opportunities to levy a franchise charge on electric utility distributors.

One important source of non-taxation revenue not usually found in the provinces is the considerable proceeds from land development activity carried out in certain years by Hay River, Yellowknife and Inuvik. The territorial government has within the past few years handed over much Crown land within the municipalities for a nominal sum of \$75 per acre. The municipality then prepares and services the land and recovers its costs through future sales. This can be a good strategy for the municipalities, since either profits may be made or heavy debenture borrowing for utility servicing avoided.

Sales of services is a relatively important source of revenue for most of the N.W.T. municipalities. This position is normally realized from water and sewer utility charges which tend to be at relatively high levels in the N.W.T.

C. GRANTS-IN-LIEU OF TAXES

Grants-in-lieu of taxes may be paid to municipalities mainly by the senior governments but also in some cases by major industries associated with the municipality.

Crown property, under the B.N.A. Act is exempt from taxation. A grant-in-lieu of taxes is a payment to the municipality, in which crown

land is situated, in lieu of the property tax which would otherwise be payable. The philosophy is that of compensating the municipality for the municipal services provided to the crown property. Because of the strong influence of government, past and present, in the development of the N.W.T., crown property is relatively abundant in the municipalities, and as a result grants-in-lieu of taxes by senior governments are of far greater importance to northern municipalities than is the case with provincial municipalities. For instance, Hay River receives the least amount of grants-in-lieu payments of any of the six tax-based municipalities in the N.W.T., yet the percentage of general revenue involved is just under 10%. Inuvik has received upwards of one quarter of its revenue in recent years in the form of grants-in-lieu.

Federal government payments of grants-in-lieu have been declining in importance in relation to territorial government payments in recent years, but they still remain at relatively high levels in most municipalities, and, in fact, still dominated such payments for Inuvik in 1972. The extent of federal properties has accentuated the scope for niggling criticism of federal grants-in-lieu policy and procedures by the municipalities. In the provinces, federal grants-in-lieu policy and procedures in this area tend to be held in high regard by comparison with certain provincial practices. In the N.W.T., however, there is a greater incidence of cases where municipal assessed values may be arbitrarily revalued downwards on account of the "accepted" value of the federal assessors. Also a higher rate of revaluations occurs where the Federal Municipal Grants Act does not include property eligible for grants-in-lieu payments. This legislation, aside from stating that there is no right to receive the grant, indicates that the federal definition

of property prevails in the application of the grant regardless of the municipality's definition.

The territorial government observes practices similar to those of the federal government in its payment of grants-in-lieu of taxes. From discussions held during visits to the municipalities, however, the territorial government appears to be cast in the role of the villain on fewer occasions than the federal government. This may be a function of the fact that there is a greater development of 'troublesome' federal agencies, such as N.C.P.C., C.B.C., or the R.C.M.P., by comparison with territorial government agencies. In general, the 'loss' of revenue, because of the need to accept senior government valuations over municipally assessed values, is not a great amount. In most cases the grant paid is equivalent to the amount that would have been raised had the property been subject to the real property tax levy.

The relevant legislation also authorizes the payment of the unpaid balance of local improvement costs, without interest, specially assessed against government property. Present policy restricts payments to local improvement projects with an expected lifetime of ten years or more, thus effectively ruling out such temporary works as street oiling and road gravelling. Of more significance to municipalities, however, is that the Federal act, at least, does not authorize payments for certain frontage and area charges which do not run for a finite number of years and which are calculated by applying a unit rate to a property dimension. In such cases it is not possible to commute the charges and make the payment in one lump sum, without interest, as is the case for the local improvement project in which the annual payments continue for a specified number of years.

Of major significance to the N.W.T. municipalities is that neither senior government pays business occupancy taxes. Much of the space which would normally be filled by private business in southern municipalities is taken up by government in the North. However, whether government property is owned or rented, grants-in-lieu of business taxes are not made and this constitutes a much more tangible area of lost revenue for the municipality. In order to circumvent this problem a proposal currently exists to bring in an amendment to the municipal ordinance which would permit a split mill rate situation. Property owned or occupied by the government could be brought under a non-residential rate which would effectively incorporate the yield of the business tax and so permit its abolition.

The great mass of grants-in-lieu payments in the N.W.T. is not without some advantage when it is considered that these are contributions from 'ratepayers' who are relatively passive to rate increases. Also, in certain respects, the N.W.T. municipalities receive a better deal in terms of grants-in-lieu payments by comparison with their provincial cousins.

In B.C., the government makes payments in lieu of taxes to municipalities equivalent to a fixed 15 mill levy on the taxable value of provincial property. A further restriction is that the government pays the grants based on 50% of current land value and 37 1/2% of current year improvement value. In addition the annual grants-in-lieu of taxes is limited in any one municipality to an amount not exceeding 10% of the amount levied for general municipal purposes by the municipality. Numerous types of provincial lands are excluded from the bases used for calculating the grant.

The degree to which provincial crown corporations pay their share of local taxes is significant in the case of the B.C. Hydro and Power Authority but is singularly absent in the case of the B.C. Rail Company (even though C.P. and C.N.R. are subject to full taxes). The Liquor Control Board pays grants-in-lieu of taxes equivalent to the annual municipal general school and local improvement taxes levied on property owned by the board.

The Union of British Columbia Municipalities has recommended that there be full local taxation of provincial property and notes that his principle, in general, is now recognized by the provincial jurisdictions in the other Western Provinces and by the Federal authority.

The Alberta legislation, passed in 1962, permits payment by the Provincial Treasurer of grants-in-lieu on all provincial property, including the legislative buildings in Edmonton. The payments may be up to the annual payment that would be realized by the municipality if the property were subject to the municipal tax. The list of property subject to grants is very broad, exempting only real property of general application such as mines, minerals, roads and streets, parks, education facilities, hospitals and property forming part of a conservation scheme. Provision was made in other acts for similar grants to be made by other provincial agencies such as by A.G.T. and by the Liquor Control Board. No business taxes are paid by the government or its agencies, except, in some situations, for the portion of the premises in which business is conducted with the public.

In Saskatchewan, the Province does not pay grants-in-lieu of municipal or school taxes on government-owned property. However, local improvement taxes are paid, but usually payment is made in a lump sum

rather than in annual installments. On the other hand, all Saskatchewan Crown Corporations make grants-in-lieu of local taxes. The Liquor Board pays the equivalent of full taxes. The Power Corporation pays a lump sum equal to the local improvement assessment against the corporation's commercial property within the municipality. It can also supplement this, at the municipality's request, from a portion of the revenues it receives in the municipalities, by adding 5% in villages and towns and up to 10% in cities to the monthly electrical accounts. This is in effect a municipal sales tax on electricity. Saskatchewan Government Telephones makes grants-in-lieu to municipalities on the basis of municipal, school, local improvement and business assessment in effect in each municipality. The property assessment does not include telephone system equipment and related easements or rights of way located in the municipality.

All other Saskatchewan crown corporations make grants to municipalities in lieu of taxes on the basis of the business and property tax assessment on commercial property located in each municipality.

Manitoba pays grants-in-lieu of taxes, on lands and buildings owned by the province or its agencies, equivalent to the full property taxes that would be payable if the properties were privately owned. The government's commercial agencies (Liquor Board, Telephones, Hydro-Electric) currently pay grants equivalent to the full property and business taxes. There is a restriction, however, that the grants to any municipality in any year under the relevant act do not exceed 5% of the total amount of the taxes levied by the municipality in that year on real property (including the amounts levied for school taxes and other special purposes).

Much would be gained by the N.W.T. municipalities if the split mill rate proposal is passed and the equivalent of business taxes realized from the senior governments and their agencies. The municipalities would then appear to be placed in a comparatively favourable position, with respect to grants-in-lieu payments, in relation to municipalities in the Western Provinces.

Pine Point has been the only municipality in the N.W.T. to have experienced the payment of an equivalent of grants-in-lieu of taxes from non-government sources. Cominco has yet to pay official taxes but it did make substantial 'donations' to the municipality in previous years which could be viewed as grant-in-lieu payments. In the Western Provinces, the mining towns of northern Manitoba provide the best examples of such arrangements. Except for the major departure from tradition exemplified in the new Leaf Rapids development, none of the mining company property that is part of mining operations is located within the municipal boundaries. None of the mine properties are subject to assessment for property taxes. By special agreements between the local government, the company involved and the province, the companies pay to the local governments grants-in-lieu of taxes based on specific formulae.

Hudson Bay Mining and Smelting at Flin Flon, in 1968, paid the Town of Flin Flon the lesser of (a) the excess of expenditure over revenue for the year excluding specific expenditures, (b) 55% of allowable expenditures, or (c) \$225 per annum per employee resident in the Town.

International Nickel Company has always elected to pay the City of Thompson and the adjoining Local Government District (L.G.D.) 55% of the allowable expenditures in each year. Although the agreement provides for the application of a residential employee formula the Company has

never elected to use this formula. Similar options are open to the Company at Snow Lake.

In 1968, Sherritt-Gordon Mines paid the L.G.D. of Lynn Lake grants-in-lieu of taxes on the basis of \$120 per annum per resident employee.

In all cases the various companies contributed additional forms of assistance such as subsidization of police costs, major capital contributions and assumption of responsibility for certain services. This is similar to the case of Pine Point at present where the company has assisted considerably in the area of recreation.

In Alberta, tax transfers from the improvement districts to the municipalities can be viewed as a form of grants-in-lieu payment. In the financial compilations used in this study these transfers have been treated as 'other grants-in-lieu'.

D. CAPITAL PROJECTS ASSISTANCE AND BORROWING RESTRICTIONS

Municipal development in the N.W.T. is at such a relatively early stage and relatively low level of development that specialized regulatory and financing boards or authorities are not yet present. These functions are discharged at present through the Municipal Affairs Division of the Department of Local Government.

It has been a difficult matter to maintain clear policies in certain areas of capital assistance because some municipalities lack the resources to acquire particular capital items when the need arises. Almost every case had to be judged on its own merits. As a result, many ad hoc decisions, invariably in favour of the municipalities, have been made which have effectively placed the N.W.T. municipalities in a comparatively favourable position in relation to the provincial municipalities.

Special capital assistance is evidenced by the extensions to or construction of town-halls/firehalls which in some cases were totally financed by senior governments. In addition, the senior governments have, in most instances, provided fire engines and auxiliary equipment free of charge. This is a privilege seldom extended in other parts of Canada. The recent capital grant for the purchase of municipal ambulances is a further indication of this trend. It is also a general policy for the senior governments to finance the construction of court houses as required. Such capital assistance is in addition to that normally made available in more conventional areas such as main utility lines, road and sidewalk construction and recreation facilities. Even in these areas the present arrangement is flexible enough to meet the financial demands for extraordinary projects of major dimensions; one example is the special assistance being accorded to Yellowknife for major utility works. As an indication of the entrenchment of the present capital assistance 'policy' it may be noted that a recent move by a Territorial Councillor to introduce legislation to permit extraordinary funding of growth centres was deemed unnecessary by both government and municipal authorities in the N.W.T.¹

Where capital costs are not covered wholly by the senior governments the Municipal Affairs Division provides the financing through loans at prime interest rates. This is made possible by the territorial govern-

¹The proposed legislation was based on the Alberta New Towns Act but it allowed for the payment of government grants in addition to government advances, loans and purchase of debentures. One criticism raised in the discussion of the proposal revealed that the only unfortunate aspect of current practice was the delay encountered by a municipality when seeking financial assistance because of the territorial government system of budgeting. This was countered by one statement that in such circumstances interim financing was facilitated by the government and could be obtained readily. (N.W.T.A.M. Annual Meeting, October 1973).

ment's direct dependence on the federal government for the bulk of its current and capital financing. This means that in effect it is the federal government that is marketing the loans. The N.W.T. municipalities, therefore, have access to the most favourable of interest rates.

Short-term bylaw borrowing is permitted by the N.W.T. Municipal Ordinance to cover expenditures until current year taxes have been collected. The amount borrowed cannot exceed 85% of the estimated revenue for that fiscal year. Villages must receive the Commissioner's approval of this bylaw.

Long-term borrowing requires an application to be made to the Commissioner first for his approval and then to the ratepayers (if it is not related to local improvements or special assessments). A city cannot make bylaws contracting debts in excess of 20% of total assessment (this includes taxable assessment and assessment in respect of which grants-in-lieu are made). For villages the relevant level is 10%. These restrictions on borrowing appear to be more or less similar to those found in the Western Provinces.

Capital assistance in the provinces tends to be more structured under special authorities and borrowing is monitored by special boards. It is debateable whether or not such bodies have the flexibility to bend to special circumstances of the kind found in the N.W.T.

In B.C. all municipal and regional district debentures are financed through the Municipal Finance Authority. The authority accepts new local debt obligations and provides, in exchange, funds raised through its own large issues sold in the public bond market at relatively favorable rates. It has the power to levy a province-wide property tax to meet its obligations. The authority was established in 1970. Prior to

this time the province, to help strengthen credit facilities for local governments, was prepared to guarantee debentures on utility systems. Municipalities normally handled the marketing of their own debentures although the province frequently looked after the debentures that it had guaranteed.

Municipalities in B.C. may incur short-term borrowing (up to five years) without first obtaining the consent of the electors, provided the aggregate does not exceed \$10 per capita or \$500,000. Borrowing in anticipation of current revenue is permitted up to the amount not yet received. Long-term municipal debt for cities, towns and districts (excluding debt for schools, hospitals and 50% of that for a self-liquidating enterprise) cannot exceed the norm of 20% of the average taxable assessment over three years plus the value of the self-liquidating municipal enterprises. In villages, aggregate debt is limited to the total of 10% of average taxable assessment and 20% of the value for self-liquidating enterprises. There are several other conditions which must be observed, a notable one being that the long-term borrowing must conform to the five-year capital budget prepared annually by the municipality and approved by the Inspector of Municipalities.

Alberta also has a Municipal Finance Corporation which has been in existence for almost 20 years. The corporation consists of the provincial government, municipalities, school districts and irrigation districts, all of which are shareholders. The corporation purchases and sells shareholders' debentures and raises money by borrowing in Canada or the U.S. and also by using some of its share of Canada Pension Plan funds. The corporation imposes a \$50 per capita limit on the amount that a municipality may borrow in a given year from the corporation. Such a limitation does not appear to be unduly restrictive.

There are no statutory limitations regarding the amount of municipal borrowing or its purpose in Alberta. Municipalities are not required to draw up capital budgets. Approval of the Local Authorities Board is required for all long-term municipal borrowing, and some borrowings must be submitted to the electorate for approval when a minimum number of electors so petition, e.g. the recent plebiscite in Edmonton in connection with the city's plan to host the 1978 Commonwealth Games. Short-term borrowing for current operations is permitted up to the amount of taxes estimated to be levied for the current year. Capital borrowing for up to three years in limited amounts may be undertaken without assent of the electors, if approved by the Local Authorities Board.

Assistance for capital projects in Saskatchewan is provided for by the purchase of a portion of municipal debentures by the Municipal Financing Corporation. Through the corporation, which was established in 1969, the province purchases up to 40% of the municipal debentures issued by the cities of Saskatoon and Regina and up to 50% of the debentures issued by the other local government bodies throughout the province.

Long-term borrowing by urban municipalities in Saskatchewan is subject to a maximum of 25% of taxable assessment for their general purpose debt. Although the type of debenture and the borrowing bylaw itself must be approved by the Local Government board, the municipalities are not required to prepare capital budgets. Short-term borrowing restrictions are relatively similar to the other provinces. Urban municipalities require the approval of the Local Government Board to establish a capital reserve fund to accumulate funds for capital expenditures and to spend from a capital reserve fund.

No general municipal finance authority exists in Manitoba although there is one for school capital financing. The Municipal Budget and

Finance Branch of the Department of Urban Development and Municipal Affairs undertakes, as one of its services, the preparation of brochures and the calling of tenders for sale of debentures for local authorities. The province does not give general capital assistance to municipalities by way of loans. Loan assistance is available on utility capital projects through the Manitoba Water Services Board in connection with their Assistance Program. The interest rate on such loans tends to be slightly more than the prevailing rate at which the province borrows money, but always less than the market rate.

Long-term municipal borrowing is restricted to capital purposes and the maximum amounts are fixed by the Manitoba Municipal Board. Five-year capital budgets must be prepared annually and a copy sent to the Director of Municipal Budget and Finance. All long-term borrowing must be approved by the Municipal Board and the board may hold hearings if any objections are filed by ratepayers. Short-term borrowing is permitted but may not exceed total tax collections in the previous year without ministerial approval.

E. HOME-OWNERSHIP GRANTS AND TAX CREDITS

All four provincial jurisdictions have or have had some form of home-ownership assistance and/or tax credit scheme designed to reduce the property tax burden of home-owners and/or renters. No such scheme exists in the N.W.T.

The home-owner grant does not conform to the general criteria with respect to what constitutes an intergovernmental transfer. It is paid to individuals rather than to municipalities but it does open up some tax room for municipalities. In the process, however, it can generate inequities where different categories of property taxpayers are treated

differently. It may accentuate any problems relating to lack of uniformity in assessment and depending on the exact nature of the system, it may not contribute significantly to reducing the regressiveness of the property tax. It may also be expensive to administer.

Tax credit systems make explicit use of personal income in their calculations and generally achieve a greater degree of property taxation progressivity. Except for arrangements where some reduction in regressivity is achieved, it is difficult to see the merits of either system over alternative uses of the funds involved in a manner which would benefit municipalities more directly.¹ These alternatives could include the greater provincial assumption of financial and administrative responsibilities from municipalities in certain areas or the granting of larger conditional or unconditional transfers.

While the original philosophy of the program was to encourage home-ownership and housing development, most jurisdictions have used this system as a method of making the real property tax less regressive. In B.C., the grant, first introduced in 1957, is in the form of an annual payment to municipal and provincial tax collectors on behalf of resident home-owners. The grant is applied as a rebate on the current year taxes (applied first to school taxes) of eligible home-owners. Those eligible for the grant must apply for it when the tax notice is received. The municipality is then re-imbursed by the province from the Consolidated Revenue Fund. The 1973 grant was a flat maximum of \$200 (\$250 for home-owners over 65 years of age). A minimum tax of \$1.00 is payable. Until

¹ Whether the property tax is regressive or not is a debatable point among certain academics. Those arguing against its regressiveness base their views on the incidence of total property taxation paid and income received by an individual in the course of his lifetime. Also, tax progressivity is not necessarily a virtue.

1974 only resident homeowners benefit from the grant. Other categories of real property taxpayers, such as the owners of commercial and industrial property and those leasing or renting their homes were excluded. Legislation passed in 1974 recognized this discrepancy in part, since renters now obtain a grant of \$30 per year, rising to \$80 per year for those over 65 years of age.

In 1968 the grant was established at \$130 and in 1970 it had been increased to \$160. However, these increases had not kept pace with the rate of increase of municipal taxation. A recent report by the Union of B.C. Municipalities (September 1973) indicates that the average per capita increase in home-owners grant payments between 1961 and 1971 was \$21.80. In the same period net taxes per capita levied by municipalities, after deducting the payments received, increased by \$80.20.

The home-owner grants scheme in B.C. received only qualified support from the Union of B.C. Municipalities (U.B.C.M.). It feels that the grant can be more accurately described as a provincial grant to a qualifying group of individuals rather than as a transfer payment from provincial to municipal governments. The system is highly discriminatory and creates disparities in the distribution of benefits among municipalities with varying ratios of owner-occupied to tenant-occupied dwellings. The U.B.C.M. recognizes that the grants constitute a well established element of public policy in B.C. and that, despite their limitations, their discontinuance would be difficult. However, the U.B.C.M. feels these grants should not be increased further and should be made less discriminatory. In place of further home-owner grant increases the U.B.C.M. would prefer to see an emphasis on comprehensive unconditional grant structures which would recognize variations in the composition of the municipal location (The Municipal Picture in B.C., U.B.C.M., 1971).

Alberta introduced home-owner grants in 1966. As in B.C., the scheme, prior to 1973, allowed the taxpayer to reduce taxes to the lesser of a specified amount or the levy on which the grant is based less one dollar. The 1973 legislation provided for a home-owner grant of total taxes or a reduction in all levies if the total tax levy was less than \$100. If the school tax levy was less than \$100 but total taxes were greater than \$100 the home-owner received a grant of \$100. Thus, all school taxes and some portion of other taxes were relieved. If the school levy was greater than \$100 the home-owner was granted a reduction only on school taxes up to a maximum of \$216. Therefore, the portion of the tax that the taxpayer was eligible to receive a grant on was dictated by the amount of the total tax bill.

Administration of the scheme placed quite a heavy load on the province and the municipalities. Prior to 1973 the province paid the grant to the taxing authority which in turn passed it on to the taxpayer. The 1973 legislation allowed the province to pay the individual directly. However, developments in early 1974 streamlined the administration of the scheme considerably. The maximum \$216 education tax rebate was eliminated along with the provincial education tax. The government will be channeling the amount it would have repaid in rebates directly into the school foundation program. These changes effectively ended the home-ownership assistance program.

Renters in Alberta were not eligible to benefit from the program prior to 1973. In that year a system of education property tax credits against provincial personal income tax liability was introduced for this group.

The formula consisted of: \$100 plus 2% of annual rent minus 1 per cent of taxable income subject to a maximum credit of \$100. The tax

credit system was also effectively eliminated in 1974 and it is anticipated that the tenants will now benefit from the elimination of the provincial education tax through either reduced or stabilized rents.

These moves continued the implementation of Alberta's Property Tax Reduction Plan. This Plan has included the assumption by the province of greater or total responsibility for financing education, health units, hospitals and social assistance. In addition the Plan has brought much higher levels of unconditional grant assistance for municipalities. Obviously this Plan has been greatly aided in its realization by Alberta's bountiful natural resource revenues. The latest events underline the most desirable routes to be taken to reduce the property tax burden, and the home-ownership and tax credit schemes have now been shown to be unnecessary for the purposes sought to date.

The 1973 version of the Plan brought commendation from the Alberta Urban Municipalities Association. A major criticism was registered, however, relating to a condition placed on the earning of the new Unconditional Incentive grant (designed to supplement the Unconditional Assistance grant). The former could only be earned if the growth in the municipal mill rate did not exceed 7 1/2%. This restriction was obviously intended by the government to prevent municipalities taking undue advantage of the tax room created by the home-owner education tax refunds. The developments in early 1974 included a removal of this ceiling and further combined incentive and unconditional grant increases of about 15% over the previous year.

Saskatchewan introduced home-owner grants in 1966. The legislation remained relatively unchanged until the change of government in 1971 when the scheme was revamped in terms of property improvement grants, extended in scope, and large increases made in the amounts involved.

Prior to the change in emphasis in 1972, the maximum amount of the grant was the lesser of a specified sum (\$70 in 1971) or one half of the year's property taxes. Only home-owners were eligible for the grants, paid directly by the province. In 1972, the new property improvement grants were extended to cover small businesses and farmers in addition to homes. Renters are still ineligible under this new system. The amount paid out was double that under the old system.

The new formula of assistance in 1973 is an amount equal to an 18 mill assessment on a home, farm or small business up to the maximum assessed values as follows: homes \$6000; small businesses \$10,000; farms \$15,000. These limits were chosen so that the vast majority of homes, small businesses and a large majority of farms would receive the grant on the full assessed value.

In dollar terms, the maximum grants in 1973 were (1972 values in brackets): home-owners \$144 (\$78); small businesses \$180 (\$130); farmers \$270 (\$95). Where the maximum is not achieved grants totalled half of the municipal taxes.

The Saskatchewan Urban Municipalities Association views the property improvement grants as a potential source of unconditional grants. The association has suggested that the next time these grants are increased the increase could be sent to the property owner in the form of a "Property Tax Rebate Voucher" which could be given to the municipality for credit on taxes. The municipality could then send the vouchers to the province periodically for redemption. This would transfer a substantial amount of revenue directly to the municipalities, where it could be used to meet their service requirements.

In Manitoba the home-owner grant began as the School Tax Rebate System in 1964. This was an annual rebate of one-half of municipal

school taxes paid by the ratepayer or \$50 whichever was the lesser. In 1967, this assistance was replaced by a foundation program of financing education in single district school divisions. The annual rebates were in effect only in the multi-district divisions which were then in the process of being eliminated. In 1971 the new government reintroduced the original program on a province-wide basis. This program was shortlived, lasting only to the end of 1972 when it was replaced by a property tax credit system.

The tax credit system in Manitoba provides benefits to both property owners and renters. The plan entitles the home-owner or tenant to a credit on provincial income tax of from \$100 to \$200 depending on income and property taxes or rentals due. Home-owners receive \$200 minus 1% of taxable income. Tenants receive 20% of annual rental payments less 1% of taxable income. The maximum and minimum credits were raised in 1972 to \$200 from \$140 and to \$100 from \$50 respectively. In 1974 the maxima and minima were raised by \$50.

The federal government administers these schemes through the mechanism of the personal income tax return and provides cash refunds or tax reductions against provincial personal income tax payable to those who qualify.

Home-owner grants and credits were inherent features of Social Credit party philosophy. They can be used as favour-gaining political tools since they are a highly visible means by which recipients benefit from government policy. Apart from this aspect home-owner grants and tax credit programs have received their impetus in the provinces primarily as a result of the need to provide relief from the burgeoning school tax component of total property taxes. In the N.W.T. school taxes have only

been of importance to Yellowknife. The burden of these taxes have been offset, in part, by relatively high levels of grants and the matter of home-owner assistance grants has thus never become a major issue. There are signs however that a quasi-assistance scheme may appear in the N.W.T. soon.

The Northwest Territories Housing Corporation is seeking Treasury Board approval for programs to provide a one-shot transportation and labour assistance grant and annual home operations assistance grants. The Corporation is requesting a front-end grant of \$3,000 to subsidize new house construction. The amount is designed to compensate for the additional labour and material transportation costs which strongly inhibit increased home-ownership in the N.W.T. The Northwest Territories Association of Municipalities supports the move and has proposed that the amount be \$5,000. The Association also supports the proposal for a utility subsidy grant designed, on a sliding scale, to limit home-owner utility costs to a maximum of 8% of income. The impetus for this support lies in the substantially higher consumption and costs of electrical power, fuel and other utilities which again strongly inhibit northern home-ownership.

If implemented, both these programs would indirectly benefit municipalities to quite a considerable extent. More private homes would extend the revenue base, and utility subsidies would open up more room for property taxation. Although the greater impact would stem from home operations assistance, it is difficult to envisage how such a scheme may be implemented. One possible method, however, could be along the lines of the Manitoba tax credit system. It is difficult to oppose such proposed programs in the N.W.T. They are not true substitutes of the southern assistance schemes since their aim is primarily to encourage

home-ownership rather than to reduce property tax burdens. It may be anticipated however that private renters in the N.W.T. will also be looking for similar treatment and meeting such demands may conflict with the main objectives of the programs. Either way the municipalities would apparently stand to gain by having more of their population more able to pay more taxes as the need arises.

PART II - CHAPTER 4

THE INTER-RELATIONSHIPS OF MUNICIPAL AND SENIOR GOVERNMENTS
IN THE PROVISION AND FINANCING OF MUNICIPAL SERVICES¹

A. INTRODUCTION

The division of the administrative and financial responsibilities for municipal services between senior governments and municipal governments varies considerably, both between the individual provinces and the N.W.T. and also within these jurisdictions for municipalities of different status. Inter-meshing this complex environment of varying responsibilities is an intricate system of unconditional and conditional grants or transfers from the senior governments, usually the provincial or territorial government, to the municipal governments. In certain service areas the transfers may be in the other direction from municipal governments to the senior government(s) through municipal tax requisitions or municipal participation in cost-sharing agreements with the senior government(s).

Responsibility-sharing arrangements such as those described above are normally found in the area of municipal services to people (e.g. education, health, welfare) rather than the more traditional and more purely municipal housekeeping-type services to property (e.g. fire protection, road maintenance, water and sewer supply). Conditional transfers from the senior governments to the municipalities are present

¹The major sources of information for this chapter have been the issues of Provincial and Municipal Finances for 1971 and 1973, (Canadian Tax Foundation), the Handbook on Provincial-Municipal Cost-sharing Programs 1970 (Canadian Federation of Mayors and Municipalities), various brochures produced by the senior governments, and interviews with municipal officials. Further detail on reference sources is presented in the reference section of the report.

for both services to people and services to property. Generally the same range of services to property are carried out by all municipalities, regardless of jurisdiction or municipal status. Built upon this relatively common base, however, is a varying range and degree of responsibility in the area of services to people. Conditional transfers made by senior governments in this service area also vary greatly depending on circumstances. These transfers are therefore best thought of as not being of particular net benefit to a municipality. The municipality is simply being compensated by the province for acting as an agent of the province in the delivery of a service. Conditional transfers in the area of services to property can be viewed as being of more direct benefit to municipalities. This approach as will be seen later is particularly suited to the present study since the N.W.T. municipalities have always confined their activities in virtually all cases to the traditional housekeeping services to property. The following discussion attempts to sort out this critical comparative issue. In the discussion the municipal responsibilities in the administration and financing of services is emphasized.

Municipal government in Canada derives its authority from the Provincial Legislatures and in the N.W.T. from the Territorial Council. The N.W.T. situation differs fundamentally from that in the provinces in that the power of the Territorial Council is much more limited and subject to a much greater degree of control by the federal government than is present in the provinces. The strong degree of federal involvement has tended to simplify the division of responsibilities in the N.W.T. by comparison with the provinces.

The federal government, primarily as a result of its constitutional responsibility for Indians and Eskimos, was in the position of supplying

major people services in the territories. While the federal government was undertaking these responsibilities, municipal government in the N.W.T. was only weakly developed and little serious thought could be given to involving the few municipalities that then existed in a share of the administration and financing of such services. Presently Indians and Eskimos, with the Metis component, still constitute the major portion (55%) of the N.W.T. population. Their importance has meant a continued involvement of the federal government in the financing of the people services, although delivery has now been placed in the hands of the territorial government. Most N.W.T. municipalities, although non-native dominated, have derived benefit from this situation and have continued to escape any major responsibilities for these services. Their responsibilities have been limited to the traditional community housekeeping functions such as local public works, fire protection, water and sewer services, and garbage disposal.

The growing strength and importance of the N.W.T. municipalities in recent years coincides with a trend in the provinces to rid their municipalities of most, if not all, of the financial responsibilities for such services as education, health and welfare, policing, and the administration of justice. Had this process now taking place in the provinces been completed, municipal finance in the N.W.T. and the Western Provinces would be on the same base. However the process has progressed at varying speeds and in differing directions in the several jurisdictions. This makes for considerable interpretative and comparative difficulties. As will be appreciated from the following, a case could still be made in each provincial jurisdiction for the additional financial burden falling on the average southern municipality, because of at least partial respon-

sibility for some people services not assumed by the N.W.T. municipalities. It could therefore be argued that such burdens in the south become forms of 'hidden' financial assistance in the N.W.T. and cancel out the influence of special northern problems such as high costs or low assessment bases. The following discussion will indicate the areas of strength and weakness of this argument.

In summary, the relatively simple division of responsibilities between municipalities and the territorial government found in the N.W.T. is in stark contrast to that found in the provinces. Most of the essential local services that originally were the responsibility of local communities alone can no longer be so precisely defined. Government action in response to increasing public demand for more government services and for better standards of performance for existing ones, has served to obscure the division of responsibility between municipal and provincial governments. As a result, financial responsibility for local services has become blurred by the necessity of providing, from provincial sources of revenue, part of the funds for many local services. Changes in the responsibility for performance of all or part of a service have also contributed to the difficulty of clearly delineating the precise functions of municipal and provincial governments.

Unconditional and conditional transfers to municipal governments comprise major elements, not only in the environment of changing responsibilities for people services, but also as forms of assistance in the performing of traditional services to property. The remainder of this chapter discusses firstly the main services to people where 'hidden' financial assistance to N.W.T. municipalities may exist in relation to their provincial counterparts. The second part of the chapter focusses

on property service areas common to all jurisdictions where direct unconditional or conditional transfers (grants) are provided by the senior government(s) to the municipalities.

B. HEALTH AND HOSPITALIZATION

The area of health and hospital services, like education, appears to hold scope for elaboration as a source of hidden grants to N.W.T. municipalities. However, as will be seen for education, intermunicipal differences are present and advances in the provinces, in terms of the assumption by governments of increasing financial responsibility, tend to weaken the argument.

In the N.W.T. all the operating costs of health units and hospitals are met by the territorial government through the Territorial Health Insurance Service. Municipalities in the N.W.T. are expected to enter into a public health agreement with the government to partially recognize the benefits of the service to non-native inhabitants of the N.W.T. (The service is basically intended to fulfill the federal government's obligations towards providing health services to Indians and Eskimos.) Municipalities contribute annually \$2.00 for every non-native person in their population. As part of the agreement they are granted \$600 annually to help defray the cost of hiring a medical officer of health, who makes certain inspections for the municipalities related to the Municipal Ordinance. These agreements have not been extended to all municipalities however, and there are indications that only Yellowknife is currently participating. The whole program does not appear to be very rigidly pursued.

Capital costs for new hospital construction or extension do not appear to have involved any municipal contributions except in the case of

Yellowknife which appears to have contributed a small portion (about 20%) of the costs of a new extension to Stanton Hospital.

Ambulance services in the N.W.T. municipalities are provided by a variety of means. In Yellowknife the city operates the service through its bylaw enforcement officers. In Fort Smith it is a completely private operation. Fort Simpson uses a taxi van and the operating funds come from D.I.A.N.D. and non-native user charges. In Inuvik the hospital provides the service. Hay River provides an ambulance with a volunteer driver from the Fire Department. Pine Point derives its service through Cominco's obligations under the Mining Act. The territorial government has recently instituted a capital grant, maximum \$10,000, to assist municipalities in acquiring an ambulance.

Health services in the provinces are delivered through health units or regions which generally comprise a number of municipalities. In B.C. the province provides full-time personnel for the health units. Outside the metropolitan areas the units are financed by a levy of 30¢ per capita on the local authorities forming each unit. The province bears the remaining portion of the cost. School districts serve as tax collecting agencies. Hospitals are administered by local hospital boards and operating costs are met by the provincial Hospital Insurance Plan. It is standard for a small portion of the capital financing of hospitals to be covered by municipalities. Ambulance services are provided privately or by municipalities. In September 1972 the new N.D.P. government in B.C. appointed a research group to study all aspects of health and hospitalization matters. This group has recently produced a long report which is now undergoing public discussion. If some aspects of the report are implemented municipal governments will have no part in the administration or costs of the total health matter.

Until recently in Alberta the province provided a per capita grant to municipalities which covered a varying proportion of the operating cost of the health units, from 35% in the large cities to about 60% in the smaller units. The average annual payment worked out to under \$2.00 per capita. Indigent treatment services were a municipal responsibility but the province assumed 50% of costs. The Hospitalization Benefits Plan involved a municipal provision of 4 mills on an equalized assessment basis with the provincial and federal governments covering the major portion of hospital operating costs. By 1973 the province had assumed the outstanding capital costs of all approved hospitals. Also in 1973, the province assumed total responsibility for the cost of local health units and removed municipal obligations to meet most hospital requisitions. Ambulance services tend to be privately operated in the province. Apparently the majority of these operations show increasing annual deficits which are passed on to the municipalities by the operators in the form of requests for grants. The provision of ambulance service under the Alberta Health Care Insurance Plan is under review. The most serious difficulty encountered has been the fact that there is no cost sharing for ambulance service with the federal government nor does it appear likely there will be in the foreseeable future. Presumably this situation affects all the provinces and would also apply in the N.W.T.

In Saskatchewan the cost of programs administered by the health regions is divided roughly in the proportions of 88% provincial and 12% municipal. The municipal percentage is slowly decreasing as there is a ceiling on the amount the municipalities contribute. The operating costs of hospitals are covered by the Saskatchewan Hospital Services Plan. Hospital construction costs are mainly borne by the provincial and federal

governments although municipal financial involvement is present. The degree of aid from senior governments varies according to the complexity of the hospital's service functions and the size of the geographic area it serves. Hospitals may also aid in the provision of ambulance services. Otherwise private operators, usually with municipal subsidies and after municipal initiation, provide this service.

Manitoba appears to require the greatest degree of financial involvement of municipalities in health and hospital services. Municipalities provide one-third of the operating costs and capital costs of the health units. Each municipality within a unit contributes toward this one-third in the proportion that its population is of the total population of that particular unit. Most hospitals are municipal but their operating costs are provided by the Hospital Insurance Plan. Municipalities pay 20% of the capital costs of new municipal hospitals only. The provision of ambulance services appears to be generally shared between private operators and the provincial government.

In summary it is difficult to find major discrepancies between the financial responsibilities of the N.W.T. municipalities and their cousins in the provinces in the area of health and hospital services. This is borne out in the detailed municipal comparisons to be reported in Chapter 5.

C. WELFARE

Over the past few decades as welfare services have expanded, responsibility for them has shifted from the municipal to the federal and provincial levels. At the local level in Canada generally, the cost of welfare programs represents only a minor part of the total cost of programs over which the various provinces have given municipalities some

responsibility. In the N.W.T. the situation is straightforward, since the municipalities have no financial or administrative responsibilities in the area of welfare. This constitutes perhaps the clearest case of hidden grants to the northern municipalities. This case is in fact crystal clear when comparison is made with B.C. but more blurred when the other Western Provinces are considered.

In B.C. total payments made under the Social Assistance Act and the Protection of Children Act are now shared between the province and the municipalities on a 90-10 basis. (In previous years municipalities have borne a heavier burden). The total amount of these payments is apportioned on a population basis for sharing with some municipalities (villages and a few small district municipalities do not have to contribute). Each of these municipalities is responsible for its own administrative costs, which can be high, but some of which are shareable with the province. (Some changes are now being considered to relieve municipalities of administrative functions). Municipalities also have to contribute a share of the capital cost of facilities. Not surprisingly this area is a very hot issue with the municipal association. The government accepts that the burden on municipalities is excessive but cannot remove it rapidly in part because of the magnitude of the program. This program accounts for a very large portion of the conditional grants to municipalities made by the B.C. government.

In Alberta municipalities are responsible for social assistance payments to those employables who are not undertaking rehabilitative services and who have established residence in the municipality. The province used to reimburse municipalities for 80% of such expenditures, but as part of the Property Tax Reduction Plan this was increased to 90%.

The Saskatchewan Assistance Act provides a comprehensive program of assistance and services for all persons in need or likely to be in need if services are not provided. Each year municipalities are assessed by the province on a per capita basis for a maximum of 5% of all costs under the Assistance Plan, with the proviso that the amount will not increase by more than 3% in any year. The province now pays all child welfare costs.

The Social Allowance Act of Manitoba brings under one statute the allowances that may be paid to those "lacking the basic necessities". Municipal responsibility is limited to direct aid provided to an indigent resident who is not yet qualified to receive a social allowance. The province pays the greater of (a) 80% of the cost of municipal relief expenditures in excess of an amount equal to one mill on the equalized assessment, or (b) 40% of actual municipal indigent expenditures.

In order to share in provincial reimbursements, Manitoban municipalities are required to grant aid to people in need without regard to residence and to pass bylaws setting out schedules of their assistance. The province reimburses municipalities granting aid to transients by 100% and charges back to the municipality of legal residence 20% of the cost of such assistance. The province also pays 50% of the cost of welfare services staff employed by the municipality over and beyond a 1965/66 base line cost. Each municipality is responsible for social assistance payments for their own residents up to 90 days when the province assumes responsibility.

Some perspective on the level of municipal financial involvement in welfare services may be derived from Table 4-1. The data relates to 1969 but it may still be broadly representative of inter-provincial differences.

TABLE 4-1
WELFARE FINANCE IN THE WESTERN PROVINCES 1969

	Manitoba	Saskatchewan	Alberta	British Columbia
1. Total Expenditures (\$)	19,079,000	35,904,000	79,647,000	104,173,000
	%	%	%	%
2. Conditional Grants from the Federal Government to the Provincial Government	50.5	44.8	40.2	43.3
3. Total Provincial Expenditures excluding grants from the Federal Government and grants to Local Government	36.5	50.6	50.3	17.0
4. Net Conditional transfers from Provincial to Local Governments	8.5	-2.2	4.9	24.9
5. Total Revenue which must be raised at the local level to finance welfare expenditures	4.5	6.8	4.6	14.8
6. Total Expenditure	100.0	100.0	100.0	100.0

N.B. Welfare financing in the N.W.T. is the responsibility of the Territorial and Federal Governments. Municipal governments in the N.W.T. are not involved financially in this service area.

Source: D.B.S. Local Government Finance

TABLE 4-2
THE FINANCING OF ADMINISTRATION OF JUSTICE AND PROTECTIVE SERVICES
IN THE WESTERN PROVINCES AND THE N.W.T. - 1971

	Manitoba	Saskatchewan	Alberta	British Columbia	N.W.T.
1. Total Expenditure(\$)	45,194,000	39,378,000	103,123,000	113,839,000	3,701,000
	%	%	%	%	%
2. Total Expenditure by Provincial government excluding grants to Local Governments	39.6	43.9	46.4	29.2	86.4
3. Conditional Grants from the Provincial or Territorial to Local Governments	0.4	1.8	1.1	4.6	0.1
4. Revenue raised by Municipalities from Fines	3.5	4.2	5.0	4.4	0.2
5. Total Revenue which must be raised at the local level	36.5	50.1	47.5	61.8	13.3
6. Total Expenditures	100.0	100.0	100.0	100.0	100.0

N.B. Fire protection expenditures are included in the above data

Source: Statistics Canada, Local Government Finance (estimates)

The high level of involvement of B.C. municipalities is the most striking feature of the table. Otherwise the pattern for the provinces is fairly similar and indicates limited municipal involvement in percentage terms at least. Current efforts to further reduce this involvement will further narrow the gap between the N.W.T. and provincial levels of responsibility in the field of welfare services.

D. PROTECTIVE SERVICES

One relatively uncontentious area where N.W.T. municipalities receive, what by comparison with the provinces, is hidden financial assistance, is policing and the administration of justice. Municipalities in the N.W.T. do not make any contribution towards the administration, operating and capital costs of the court system. Similarly they make no contribution towards the cost of police services rendered by the R.C.M.P. It may be noted, however, that certain municipalities in the N.W.T. make expenditures for full-time or part-time bylaw enforcement officers. Municipalities in the N.W.T. tend to be dissatisfied by the level of municipal policing carried out by the R.C.M.P. This can be a complaint of some municipalities under an R.C.M.P. contract in the provinces who do not operate their own police force. In those municipalities in the provinces under R.C.M.P. contract many municipal bylaws are excluded and a full- or part-time bylaw enforcement officer may have to be appointed.

The Municipal Act in B.C. places responsibility for policing on cities and district municipalities, but not on towns, villages or rural areas where the responsibility is directly that of the province. The cities and district municipalities may employ their own forces or operate under an agreement whereby the R.C.M.P. performs the function. Until very recently the cities and district municipalities were also financially

responsible for provision and maintenance of all physical facilities required by the Provincial Court within the municipality. Legislation in 1969 relieved these municipalities of the cost of judges' salaries, and legislation currently being enacted makes the government responsible for the operation of the Provincial Courts. This will bring all classes of municipality in B.C. into line as far as the court system is concerned. (The change has also meant some loss of surplus fines revenue to most of the municipalities.)

In Alberta the R.C.M.P. carries out the policing of the province under agreement. The terms of the contract with the province provide for the policing of rural areas and municipalities with a population not exceeding 1,500 in population. Policing of this group of municipalities is carried out at no cost to the town or village concerned. Municipalities having populations in excess of 1,500 can either do their own policing or pay for a contract with the R.C.M.P. There is phased financial assistance over a five year period once the population of 1,500 is exceeded: 60% of the annual contract costs in the first year; 40% in the second year; and 25% in the third, fourth and fifth years. As in all the provinces rapid increases in the cost of policing is bringing municipal requests for some government subsidization for the larger units.

The provincial government in Alberta provides all courtrooms, judicial offices and supporting staff leaving little or no municipal involvement. The province, through the Attorney-General's department, provides a grant of up to \$40,000 to any municipality constructing a police building to approved standards.

In Saskatchewan the R.C.M.P. is under contract to police the whole of the province outside cities, towns and villages having a population of

500 or more. Most of these latter municipalities have policing contracts either with the R.C.M.P. directly or through the provincial Attorney-General. The municipalities pay the costs of the extra police required for populations in excess of 500 while the province absorbs such additional costs as the maintenance and escort of prisoners and rental charges for police premises. In addition, municipalities that provide police protection are eligible for annual grants of \$1.50 per capita. (In 1974 this practice was changed so that the assistance would be distributed on an equalized basis).

All magistrates and judges of the magistrates courts are appointed and paid for by the provincial government, but cities are responsible for providing courtroom facilities and the necessary clerical staff. The Attorney-General has the statutory authority to request towns to perform this service but so far no such request has been made.

In Manitoba, the R.C.M.P. generally polices all municipalities except the few larger units which have their own forces. Cities, towns and villages with a population in excess of 500 are required to provide their own police protection and the government does not share in this cost. Apart from police services, municipalities outside Winnipeg have no responsibility for the other costs of administration of justice in the province.

Fire protection is a municipal responsibility in all the jurisdictions considered in this study, although sometimes a large industry or government establishment will provide its own facilities as a substitute for or supplement to local services. In the N.W.T. some capital assistance has been provided on an ad hoc basis in the form of fire halls or fire equipment. Similar schemes exist in certain of the provinces. In B.C.

special grants are made to assist municipalities with the purchase of equipment. These grants have a \$5,000 maximum and are on the basis of need in a particular municipality. Location and availability of this equipment on a regional basis is also considered in granting this additional financial assistance.

Table 4-2 includes 1971 data for the five jurisdictions covering expenditures on administration of justice and protection in 1971. The main feature of the table is the much lower percentage of total expenditures which must be raised at the local level in the N.W.T. This pattern would have been accentuated if fire protection expenditures, which were a major portion of local expenditures in the N.W.T., could have been shown separately.

E. EDUCATION

Municipal involvement in education financing centres on the portion of the real property tax base which has to be given over to cover requisitions for school boards or provincial foundation program funds. Municipalities are thus directly affected by the level of the senior government contribution to total education costs. This is the case whether the contribution comes in the manner of outright grants to school boards, foundation funds or assistance to home-owners to relieve them of the education element in the property tax burden.

In the N.W.T. the government finances 100% of all education expenditures except for a percentage of those costs incurred by school districts.

Yellowknife is the only municipality in the N.W.T. to operate school districts. To these districts the territorial government pays for 75% of all new construction projects, 75% of the costs to equip and furnish the building and 50% of the cost of capital renovations and replacement of

furnishings and equipment. The regulations governing claim procedures for capital grants are not as constraining as those of the provinces where Ministerial approval for capital expenditures is frequently required. In terms of operating costs the school districts in the N.W.T. strike a budget and submit it for approval to the Department of Education. Once approved, the school board is given an operating grant based on per pupil enrollment by educational levels. The per pupil allotment is arrived at by straightforward calculations and is revised annually. The portion of school district costs not covered by government grants is obtained by requisition from the municipality which levies and collects the necessary property taxes. For capital expenditures, taxes are used to raise 25% of the cost of capital projects and 50% of the renovations. A school board borrows the amount it requires from the territorial government and repays the debenture from the property tax yield. Operating costs incurred beyond grant payments are also financed by the property tax yield.

In recent years grants to the combined Yellowknife school districts have covered just under 50% of total costs, the remainder being derived from the yield of the school property tax. In the year 1971-2 total school districts expenditures were \$1,304,308 and 53.8% of this total was derived from municipal tax sources.

The financing of education in the five other tax-base municipalities of the N.W.T. is markedly different from that for Yellowknife. The territorial government may levy a school property tax amounting to up to 20 mills in incorporated municipalities throughout the N.W.T., except in those municipalities with school districts, i.e. Yellowknife. The present rate is 15 mills and is currently levied on property only in

Fort Smith, Inuvik, Hay River, Fort Simpson and Pine Point. The levies accruing from these municipalities may be found in the revenue summaries. It is clear that the amounts raised could only cover a very minor portion of the total education costs incurred in each municipality and hence these costs are borne almost wholly by the government. By comparison with most provincial municipalities, and with Yellowknife, these northern municipalities may be deemed to be in receipt of substantial hidden grants for education purposes.

Three of the four Western Provinces operate a relatively similar form of foundation program to finance their educational expenditures. This approach involves both provincial and municipal governments contributing to a fund especially designed to finance education on an equalized basis throughout the respective provinces. Money from the fund is distributed by grant to school boards on the basis of actual need. The system in Saskatchewan is slightly different in as much as the municipalities do not contribute directly to a centralized fund, i.e. money raised at the local level to finance education is retained at the local level.

Some perspective on the relationship of provincial grants to property tax contributions in terms of total expenditures on education may be found in Table 4-3 where 1971 data for the four Western Provinces are presented. Home-owner assistance grants and property improvement grants are excluded from this table. Although these are grants to individuals rather than municipalities these are of considerable significance because they serve to open up property tax room for the municipalities which may be exploited to give more attention to services to property. Such grants are not available in the N.W.T. to reduce the influence of the school tax levy on Yellowknife. For example in B.C. in

TABLE 4-3
EDUCATION FINANCE IN THE WESTERN PROVINCES 1971

	Manitoba	Saskatchewan	Alberta	British Columbia
1. Total Expenditures on education (excluding debenture charges) (\$)	192,029,000	172,985,000	362,079,000	411,209,000
	%	%	%	%
2. Conditional transfers from the provincial government to municipalities for the purpose of education	65.8	50.3	63.0	51.6
3. Contributions to the Foundation Program raised through the property tax	30.0	0.0	28.3	32.2
4. Local Property Taxation to cover local expenditures on education	4.2	49.7	8.7	16.3
5. Revenue from Property Taxation used to finance education	34.2	49.7	37.0	48.4
6. Total Expenditures	100.0	100.0	100.0	100.0

N.B. It was not possible to obtain comparable data for the N.W.T., except in Yellowknife where about half the education financing was provided from local property taxation in 1971. The other municipalities raised an almost negligible percentage of total education costs from their property tax base.

Source: Statistics Canada, Local Government Finance (estimates)

1972 allowance for this factor resulted in the net percentage cost of education covered by property taxation falling to 38%. (Education Finance Study, G.N.W.T., 1972). The same source indicates that when property improvement grants are taken into account in Saskatchewan the portion of total costs met by local property taxation was estimated to fall to 32% in 1973. In 1971-2 government operating grants to the Yellowknife school districts covered about 46% of total operating expenditures. If the influence of the home-owner grants in the provinces are taken into account Yellowknife receives less government assistance with education than is the average in the provinces.

At the present time all four provincial jurisdictions are making energetic moves to further reduce the burden of education costs from property tax sources. In 1973 Manitoba increased outright transfers towards standard education costs to 80% of the total from 70%. In addition more generous tax credits were introduced to include the full cost of local government education levies, and to some extent other general property taxes. In Alberta, the province has, in effect, assumed responsibility for almost all the standard costs of education. This is due to the 1974 measures by which the province has removed the provincial educational tax levy of 28 mills from all residential property. In 1973 Alberta introduced municipal incentive grants deemed unconditional but obviously aimed at reducing supplementary school requisition burdens, and initiated a tax credit plan for renters to help leave some more valuable tax room for municipalities.

The N.W.T. government, in its treatment of Yellowknife, appears to be lagging behind the Western Provinces as they rapidly assume the large majority or all of the standard education costs in their respective

provinces. It is understood however that a significant increase in the level of grant support to the Yellowknife school districts is to be implemented in the near future (to cover 75% of operating costs and 100% of capital costs).

In summary, it may be stated that the recent events in education finance in the provinces have tended to reduce somewhat the scope for arguing that substantial hidden financial assistance situations exist with respect to certain N.W.T. municipalities.

F. UNCONDITIONAL TRANSFERS

By 1974 all five jurisdictions under study had a form of unconditional grant to urban municipalities. Of those making the grant the N.W.T. is one of the least sophisticated in terms of its system but it is certainly the most generous in terms of amounts paid out. Beginning with 1973 the N.W.T. has been paying out \$35 per capita to the municipalities as an unconditional grant. Previous to 1973 a formula was employed whereby the grant was equivalent to ten mills on the taxable assessment of the municipality. The per capita system has reduced the inequities of the old assessment system but it has not met with the full approval of the Northwest Territories Association of Municipalities. The Association favours a system based on a percentage of taxes levied or on operating expenditures.

Unconditional grants to local governments in British Columbia are now paid on a basis of \$34 per capita (1973, \$32 per capita). Prior to 1973 this grant had to be applied to expenditures in a specified manner of priorities. (Technically, therefore, it did not qualify as a proper unconditional grant). From 1968 to 1972 the grant was \$25 per capita and in 1972 it was \$30 per capita. The provincial association of municipalities

(U.B.C.M.) regrets the low rate of increase of the amount of the grant and proposes that it should be related to the growth of personal income tax revenues in the province. This approach has recently been incorporated into the unconditional grant system in Manitoba. In 1973 the per capita grant there was raised to \$10 from \$8. In future years the total unconditional grants will amount to 5% of Manitoba's receipts from personal and corporate income taxes. Going by past trends this would entail an approximate increase of 20% per annum in the level of the grant. Prior to 1969 the per capita unconditional grant level in Manitoba was \$3.00.

Until 1971 the Municipalities Assistance Act in Alberta provided all municipalities with an annual grant equal to one-third of the royalties collected during the immediately preceding year on petroleum and natural gas. In 1971 the Act was amended, removing the stipulation referring to one-third of royalties and substituting in its place provisions whereby the legislature could fix annually the amount to be paid out. The intent of this amendment is well evidenced at the present time when such royalties are increasing at unprecedented rates. Although the municipalities appear to have been excluded from benefiting directly from these events, the increased revenues have been passed on to them in part in the form of more elaborate unconditional grants (in addition to increased assistance with education, health and welfare commitments).

The 1973 Alberta Property Tax Reduction Plan introduced two types of unconditional grants: (a) Unconditional municipal incentive grants which could be earned by a municipality keeping its annual budget increase to less than 7 1/2% per annum. The amount of the grant paid varies in accordance with the School Supplementary Requisitions made on the munic-

pality in the previous year and the relative significance of this requirement in terms of local expenditures. (b) Municipal assistance grants calculated with the use of a new formula, each factor in the formula relating to a basic principle of recognizing relative financial need. This formula, of which no public details are available, has proved to be difficult to administer. For comparative purposes, when translated into per capita terms the combined unconditional incentive and assistance grants paid out to Alberta municipalities in 1973 averaged approximately \$14.00 for cities, \$17.00 for towns, and \$25.00 for villages. The 7 1/2% guideline has been eliminated for 1974. The 1974 grants for each municipality will be the total of the 1973 grants plus 15%. The whole subject of municipal grants is to be referred to a new Provincial-Municipal Finance Council.

Not unsurprisingly the unique absence of unconditional grants to Saskatchewan urban municipalities prior to 1974 was a source of great frustration to its municipal associations. In 1974 a small per capita snow plowing assistance grant to urban municipalities was turned into a \$10 per capita unconditional grant. The Saskatchewan government has placed a distinct emphasis on conditional grants of support and a plethora of these exist. Despite their numerical impressiveness the amounts provided by most grants are not very substantial.

In both British Columbia and Manitoba there seems to be an appreciation of the inequities of a flat rate of per capita grant, although nothing has been enacted to change the situation. The satisfactory measurement of need is a major difficulty preventing wider acceptance of such a system.

In the N.W.T. the difficulties of assessing population levels, including making allowances for the transient element, add to the problems

of computing per capita unconditional grants. An additional element is the marked differences in the cost of providing certain services in each municipality owing to special site or location factors. Also there is little scope in the N.W.T. to link the level of unconditional grants to the rate of growth of either natural resource revenues or personal and corporate income taxes since these taxes are handled in the N.W.T. by the federal government. It would seem desirable however, to introduce some direct mechanism which recognizes rapid growth and its concomitant demand for expenditures by municipalities. The proposal to base unconditional support on a percentage of operating expenditures appears to have some merit in avoiding the difficulties of population assessment and coping, in part, with the need to recognize growth factors. However, the percentage level at which such support should be pegged, the items to be included as operating expenditures, and the areas to remain covered by conditional grants, are all very important issues which would require much deliberation. A further complicating factor is that this approach would only partially recognize cost differentials among municipalities. It seems as if more specific attention would have to be given to this factor, perhaps by varying the percentage base in accordance with average cost differences. However, one danger of the whole approach of using a percentage base of operating expenditures is the possibility that inefficiency could be encouraged. A well-designed assistance scheme would be required to avert this danger.

Clearly many difficulties lie in the way of an approach based on operating expenditures or taxes levied. These difficulties have the effect of casting the per capita system in a good light despite its crudeness. In addition the present level of unconditional grant support,

at \$40 per capita, is well above the levels in the provinces indicating a positive appreciation of greater average costs and difficulties in the N.W.T. of providing basic municipal services. It would be wise, however, to devote a considerable amount of research effort to determine a more refined approach to the allocation of unconditional grant assistance.

G. TRANSPORTATION SERVICES

In common with the situation in the provinces, municipalities in the N.W.T. are responsible for the construction and maintenance of municipal roads. The absence of an extensive trunk highway network in the N.W.T. clouds the issue somewhat with regards to additional assistance or full senior government responsibility for portions of arterial highways located in the municipalities.

In the N.W.T. a standard road maintenance grant of 40% of the previous years expenditures on this category is made, based on audited financial statements. Capital grants for road and sidewalk construction generally amount to 50% of the cost of approved construction. The balance of the costs is normally financed by a matching debenture loan. No special arrangements exist for any portions of a designated territorial highway located in the municipalities.

In B.C., the province pays up to 50% of construction and 40% of maintenance costs of approved secondary highways in municipalities with a population of less than 30,000. The provincial contribution for secondary highways may be increased to 75% for municipalities with a population less than 1,000. The province is responsible for the construction and maintenance of all classified arterial highways through municipalities with a population of less than 30,000. The province also shares 50-50 on costs of constructing curbs, gutters and associated storm drains on

arterial highways. It is not clear what, if any, provincial assistance is available to municipalities for roads which are not designated arterial or secondary. Prior to 1972 a portion of the per capita grant had to be first applied to construction, repair or improvement of streets and roads within the municipality. This indicates that local road costs are expected to be met, in part, from the unconditional grant.

In Alberta the province is responsible for the building and maintenance costs of all primary highways, including those within town and village boundaries, but excepting those in cities. Cities pay the cost of constructing and maintaining highways and freeways within their boundaries, but the province makes a grant of 75% of construction costs (100% in fringe areas) and provides annual maintenance grants per mile. The province pays 100% of the construction costs of secondary roads passing through rural municipalities, towns, villages and hamlets. Normally local roads are the responsibility of the local taxing authority. Continuing earlier programs, a five year Streets Assistance Program commenced in 1973 which provides grants for improvement of local roads in towns and villages. It consists of a basic grant of \$20,000 plus a per capita grant of \$20 per municipality to be paid only once in the five year period.

All roads in Saskatchewan are the statutory responsibility of local governments with certain major exceptions which are assumed as total provincial responsibilities. The province looks after the provincial highway system (by definition, extensions and connections in towns and cities of 1,000 population or more are not part of this system); provincial highway extensions and connections within the incorporated area but outside the built-up area of towns and cities; designated public highway connections from provincial highways to villages and towns.

Saskatchewan's Urban Assistance Program provides financial aid to villages, towns and cities on a shared basis for improving streets and bridges that form parts of highway routes and connections through municipalities and arterial streets and bridges on these streets, within the incorporated areas of villages, towns and cities. In urban municipalities where the population is less than 5,000 the main business street is eligible for financial assistance whether it is designated an arterial street or not.

Construction of highway routes, in built up areas and on arterial streets within incorporated limits of urban municipalities, are classified into two types of improvements: permanent pavements and temporary improvements. The provincial share of expenditures for all sharable improvements on highway connections in built up areas varies with the population of the municipality. Where the urban population is less than 15,000 the province will assume 75% of the cost and where it is over 15,000 the provincial share is 50%. The provincial share of expenditures for all sharable improvements on arterial streets and/or main business streets within the incorporated limits of urban municipalities is 50% regardless of population.

The elaborate assistance arrangements for transportation services in Saskatchewan hinges mainly on the need created by the absence of an unconditional grant to the urban municipalities. Such is the complexity of the arrangements that a Municipal Road Assistance Authority exists to implement the policy. In 1972 the Authority instituted a street improvement program in towns, villages and hamlets which covers all streets except the main business thoroughfare and its highway connector. The maximum grant available to any urban municipality was \$40 per capita over a five year period. The urban municipality could receive assistance through this program for storm sewers, street reconstruction, gravelling, curb and

gutter installation, asphalt surfacing, sidewalk installation, signing, street lighting, and miscellaneous. In 1974 this improvement program was replaced by the Community Capital Fund which encompasses the aims of the former program and other urban services and facilities. Grants from the Fund will be allocated to urban communities on the basis of population, at the rate of \$15 per capita per year to a maximum of \$75 per capita for the five-year period ending in 1979.

One final grant that may be noted in Saskatchewan is that to assist cities only to finance snow removal services. The grant amounts to \$1.50 per capita. (This grant is being replaced by an unconditional operating grant of \$10 per capita in 1974).

In Manitoba municipalities are responsible only for basic land service roads feeding provincial trunk highways or provincial road traffic to the point of origin and destination. These are built and maintained by the municipality. In cities, towns and villages outside Metropolitan Winnipeg, the province pays 100% of construction and maintenance on provincial roads and provincial trunk highways through cities, towns and villages and, in addition, will designate an arterial street system on which the city, town or village is eligible for a 50% construction grant only.

On balance for the five jurisdictions there appears to be a marginal difference in favour of the N.W.T. in the level of assistance to municipalities for road and street infrastructure. By comparison with the N.W.T., the lower level of assistance for local streets in the provinces is not entirely compensated by the higher level of assistance to major roads within the municipalities. As was stated earlier, no distinction is made in the N.W.T.

H. RECREATION AND CULTURAL SERVICES

Municipalities in the N.W.T. benefit from a high level of government financial assistance in the area of recreation. Libraries, which tend to be the major, and in some cases the only, cultural service in which municipalities are involved, are the object of a relatively comparable level of assistance in the N.W.T. in relation to the provinces.

N.W.T. municipalities may receive a capital grant to cover up to 50% of the cost of community centres. Community halls, athletic fields, skating arenas, curling rinks, swimming pools, are all embraced by the definition of community centre. The grants are only paid in respect of an approved project and may not exceed \$75,000 over a three year period (for each community).

Community Recreation Program assistance is also provided by the territorial government to communities who, through their local governing body, support a diversified recreation service commensurate with the needs and interests of the residents. A grant of \$5.00 per capita may be made to each community up to a maximum of \$25,000. As one condition at least 20% of the grant must be used for leadership and training.

An Outdoor Recreation Facilities grant may be made to assist in the construction of outdoor facilities. A community must contribute 50% of the costs of the project. The maximum amount payable is \$5,000 in any three year period.

Policy has also been approved to assist in fuel oil and electricity costs for Community Centres but funding is not yet available to support this policy.

This impressive array of recreation assistance programs in the N.W.T. is difficult to match in the provinces. In 1971 B.C. introduced some assistance in this sphere. Communities with no full-time recreation

staff are eligible for an administration grant of \$300. If some full-time staff is present, grants are made for the head of the recreation department amounting to \$4,000 in the first year, reducing in amounts of \$1,000 to nil in the fifth and subsequent years of its operation. Each full-time employee other than the head elicits \$2,000 in grant assistance to the municipality in the first year, reducing in amounts of \$500 to nil in the fifth year. A very recent development in B.C. is the Communities Recreation Facilities Fund which makes provision for one-third of the capital costs of recreation facilities up to a maximum of \$333,000. This government financed Fund is apparently a very successful program having been oversubscribed by several times.

Recreation assistance programs in Alberta have also lagged behind the N.W.T. example. An operating grant exists of \$1.00 per capita for the first 20,000 population and 20¢ per capita for the amount in excess of this population. This has existed for some time as has an annual grant to municipalities with an approved recreation program of up to \$1,000 towards the salary of a qualified supervisor and up to one-third of the amount paid to certified part-time activity leaders. In December 1973 a capital financial assistance program was announced to cover recreation facilities. The program is to encourage and support co-operative efforts between municipal authorities and community organizations to meet the demand for recreation facilities. Under the program, basic funding for community projects will be a basic \$500 per municipality and \$1.00 per capita per annum. This assistance applies to municipalities with a population of less than 15,000. Another schedule applies to regional recreation projects and school/community projects in arrangements with populations over 15,000. The level of assistance for this schedule is \$0.65 per capita per annum.

Saskatchewan has a few programs of recreation assistance but they are of limited scope. A Community Cultural Project grant is aimed at smaller communities and will subsidize projects to half the total cost of the project to a certain maximum determined by the government. A Community Junior Development Grant exists to encourage any municipal government to pass a bylaw to establish a Recreation Board and to assist these Boards in the training of local leaders to provide a greater range of leisure activities. No amounts are specified. Other grants exist to aid community use of schools through assistance with power supplies, and to initiate and sustain community recreation leadership.

In Manitoba municipalities are assisted to expand and to strengthen their recreation programs giving priority for leadership costs for instructors and for leadership training programs. Those municipalities employing full-time recreation directors are eligible for grants up to a maximum of \$2,000 annually towards programs. Capital recreation grants of 25% of total cost up to \$20,000 are also available if the local authority guarantees the balance of the capital costs as well as the operating costs. Some minor instructional grants and arts program development assistance is also available.

The magnitude of the generous assistance received by N.W.T. municipalities over their provincial counterparts is indicated in Table 4-4. These figures were taken from a meeting of Provincial Recreation Directors and are abstracted from a N.W.T. government brief presented to municipalities in the fall of 1973.

Libraries: Formal assistance for libraries is not very substantial, in dollar terms, in comparison with other grant programs. However, due to the establishment of regional systems and significant private community

Involvement, library services are rarely a financial burden to any small community, in the territories or the provinces.

In B.C. funds raised locally are matched up to \$1,000 plus a grant of \$500 to each library for each professional librarian on staff who holds a B.C. certificate. Regional library support is contingent upon certain standards being met after which an annual grant of the greater of \$1,000 or \$1.50 per capita is provided (for populations up to 10,000).

TABLE 4-4

PER CAPITA ACTUAL RECREATION EXPENDITURE OF GOVERNMENTS
(CAPITAL AND OPERATING AND MAINTENANCE)

N.B. No date given for data

1. Northwest Territories	\$20.78
2. Yukon Territory	8.21
3. Newfoundland	2.36
4. Prince Edward Island	1.90
5. New Brunswick	1.63
6. Nova Scotia	1.13
7. Saskatchewan	1.03
8. Alberta	.89
9. Ontario	.66
10. Manitoba	.43
11. British Columbia	.18

Source: N.W.T. Government brief to meeting with N.W.T.A.M.
in Yellowknife, September 1973.

In Alberta, the major assistance is in the form of 35¢ per capita where the municipal appropriation is at least 50¢ per capita, or 75¢ where the appropriation is \$1.00 per capita (less generous arrangements exist for municipalities greater than 10,000 in population).

In Saskatchewan member municipalities of regional libraries get an initial per capita grant of \$1.50 for book acquisition. In addition, \$1.30 per capita per annum is paid provided the member municipality con-

tributes annual amounts agreed to when the region was organized. In Manitoba regional libraries receive an establishment grant of \$10,000 plus \$2,000 per member municipality annually. Public libraries in Manitoba receive \$200 towards establishment, \$2,000 annually for main libraries, and \$1,000 annually for branch units.

In the N.W.T. the government provides a formal grant of 50% of basic operating costs up to a maximum of \$1,500 per year. However, because of recognition of the lack of cultural services in the isolated N.W.T. communities, the territorial government has undertaken the establishment of libraries in various communities, linked to a comprehensive regional system centered in Hay River. The territorial government pays the major operating costs of these libraries, including staff salaries, and any financial requirement from the municipality is minimal.

I. ENVIRONMENTAL HEALTH

The responsibility for environmental health services is normally accepted as being primarily municipal. In the provinces little government financial assistance has been available until recently. Sewage treatment assistance has become more common reinforcing an older program sponsored by C.M.H.C. The expectation has been that other elements of the water supply and sewage systems will operate on a self-liquidating basis. In the N.W.T. the unusually high costs of development and the rapid growth of certain municipalities necessitate more government assistance. In certain cases this has meant outright building of the system and operating it until such times as the municipality could take over. At the point the system is turned over for a token sum. In more developed municipalities senior governments have financed a major portion of capital costs through the construction of main trunk lines from intake to outfall,

including lift stations, pump houses and lagoons. Lateral extensions are the responsibility of the municipalities, with costs frequently being recovered by local improvement charges. It is recognized by the government that as a result of forced growth several municipalities are faced with major renovations to their systems at costs which are beyond their financial capabilities to absorb. Steps have been taken to obtain extraordinary direct grant funding to finance these renovations.

The government also provides a sanitation grant under the water delivery policy. The grant amounts to the difference between the cost of delivering potable water to households and the amount collected from consumers. This is for truck water delivery to parts of the municipalities not serviced by a piped utility system.

Because of the widely-spaced nature of northern settlements, sewage treatment has not yet become an issue in the N.W.T. to the degree present in certain of the provinces. B.C. has a Municipal Treatment Plant Assistance Act (presently under review) which permits the province to make annual grants equal to 75% of the amount by which the annual municipal debenture repayments exceed the product of a 2 mill levy on all land and improvements taxable under the Municipal Act. This restriction apparently makes financial assistance from the province almost impossible to obtain. The inadequacy of the limited financial support offered by the Act is evidenced by the fact that very few municipalities have been able to benefit from it. As in all the jurisdictions some financial relief is available through C.M.H.C. in terms of loans, with a forgiveness feature which assists in the financing of sewage treatment plants and interceptor lines. However, the scheme is limited to two-thirds of project costs and with the 25% forgiveness clause only accounts for a fraction of total costs, the remainder being locally funded.

Saskatchewan also has a program of grants to assist its cities in the financing of the capital cost of constructing water pollution control works. The grant is 10% of the capital cost up to a maximum of \$500,000. Also in this province the Municipal Water Assistance Act enables urban municipalities other than cities to finance the installation of waterworks and sewage or to improve existing systems. The grant covers up to 80% of the capital costs.

Alberta and Saskatchewan have recently entered into cooperative agreements with the federal government for undertaking a five year Agricultural Service Centres Program. The program assists in the financing of the construction of water supply facilities for specific centres in each province that are assuming a growing role as Agricultural Service Centres. Under the terms of the agreement as it applies in Saskatchewan, the municipality will be granted outright half the cost of the project, the other half being in the form of a loan at federal government interest rates. The Alberta procedure is described below.

Alberta has recently instituted a complementary Municipal Waterworks Assistance Program to assist financially in the construction of water supply storage, treatment and transmission facilities. To be eligible for assistance toward the capital cost of these facilities, the existing capital debenture debt for such items must equal or exceed \$75 per capita. Any community with an existing per capita debt of less than this amount will be required to be financially responsible for that portion of the new work capital costs up to the equivalent of \$75 per capita. Financial assistance is provided by the government to a maximum amount equivalent to an expenditure of \$150 per capita. The assistance is on the basis of a 50% grant and a 50% loan at low interest rates (7 3/4%). Any amount of

capital cost that exceeds this provincial assistance is the sole responsibility of the municipality. It is a five year program.

Manitoba has a Water Services Assistance Program which includes capital grants to a municipality undertaking a project equal to the sum of the capitalized amount of 20 mills on the municipality's equalized assessment and 50% of the balance of the cost for both water and sewer construction. Existing debt is taken into consideration in this calculation. Loans are advanced to the municipality by the Water Services Board to cover the balance of costs. The interest rate is slightly more than the prevailing rate at which the Province borrows money, but it is always less than market rates. No operating grants are made.

Municipalities in the N.W.T. appear to be relatively well off in terms of capital assistance on water and sewer projects. A sympathetic government acknowledges the greater difficulties and costs encountered in the N.W.T. in this service area and its assistance measures seem to reflect this both in the sphere of trucked and piped systems.

J. MISCELLANEOUS

To complete this survey of the division of responsibilities for services, as it affects municipalities, and senior government financial assistance, a few of the more significant miscellaneous aspects of this topic may be considered.

An administrative grant, apparently unique to the N.W.T. is paid to municipalities for the first five years following incorporation. The amount is \$3,500 per annum and is to assist municipalities in the acquisition of office furniture, printing supplies, etc. Planning grants of \$2,500 per annum are paid to all municipalities (except for hamlets). This is intended to assist in the acquisition of town planning services.

Other assistance in the planning sphere is provided on a more ad hoc basis through government funding of some consultant reports. Some minor grant assistance is also available for tourism promotion.

In B.C. a notable miscellaneous grant of interest in connection with Yellowknife is the Capital Improvement District Grant. The legislature annually votes about \$200,000 to enhance the appearance of the capital city region. The Commission administering the scheme has in most cases used the municipality as a contractor. Also in B.C. special assistance is granted to municipalities of village status through the province's assuming responsibilities for real property tax assessment, tax billing, administration of justice (including policing and court costs) and social welfare. Provincial planning services are available on request to any municipality outside the two metropolitan areas in B.C.

No major miscellaneous grants appear to be present for Alberta other than assistance in connection with civil defence and emergency measures. This form of assistance is common to all the jurisdictions.

In Saskatchewan the province has operated its own Winter Works Incentive Program which has assisted some municipalities. Other grants are available to assist in the construction and operation of tourist facilities and outdoor recreation facilities in the context of a Regional Parks Program.

Manitoba also provides various forms of assistance to encourage tourism but it is also strong on industrial development incentives. Grants are available to Regional Development Corporations, for Industrial Parks studies, and through a Regional Employment Program. Planning assistance is also available to municipalities at a subsidized rate of 30¢ per capita for rural municipalities and local government districts or 40¢ per capita

for villages, towns and cities. Grants are also available for programs designed to foster public understanding of and participation in planning.

PART III - CHAPTER 5

MUNICIPAL FINANCE - INTER-MUNICIPAL AND
INTER-PROVINCIAL/TERRITORIAL COMPARISONS

The basic purpose of this chapter is to present detailed comparisons of the six N.W.T. tax-based municipalities and the selected provincial municipalities. The N.W.T. municipalities are considered first and the intermunicipal variations in municipal finance are stressed. The four Western Provinces are then considered individually. For each province the selected municipalities are first placed in perspective through a comparison with a random sample of municipalities in the same province for one year, 1971¹. After placing the provincial selections in some perspective to the random sample, comparison is made between the provincial selections and the six N.W.T. municipalities (termed the N.W.T. Intermunicipal Block). Finally the N.W.T. block is compared with the provincial intermunicipal block, the emphasis being placed on the jurisdictional averages.

The chapter constitutes, in effect, a narration of the data presented in numerous tables and figures. The main source of the data is the financial compilations collected together in Volume II of this report. For convenience purposes this data has been re-arranged by sub-category

¹The sample was stratified to some extent in that an attempt was made to select municipalities of various size and status, located in different regions of the province. The 1971 data year was employed primarily because of the availability of reliable population census data. The data in the intermunicipal blocks are not directly comparable with the data presented in the financial compilations (Volume II, Tables 5-1 to 5-16) since different classification methods were employed in some cases.

of revenue and expenditure, rather than by municipality, and presented in fold-out tables and figures located at the end of this chapter. This material can be identified as Tables 5-1 to 5-16 and Figures 5-1 to 5-16.²

Fold-out intermunicipal block tables have been compiled for each of the major jurisdictions. In the case of the N.W.T. several years data are included on the tables, one of which covers revenues (Table 5A-1), and the other, expenditures (Table 5A-2). For the provincial jurisdictions data are presented for 1971 only. These particular tables are identified by the section notation pertaining to the province in question (e.g. Manitoba expenditures are found in Table 5E-2). Reference maps accompany these tables. The N.W.T. selections and the main provincial selections are shown in Figure 5A-1. The provincial intermunicipal samples are located in Figure 5B-1 (B.C.), Figure 5C-1 (Alberta) etc.

A schematic diagram portraying the approximate rates of change of certain major municipal finance categories for the main selections is presented as Figure 5-17. The categories represented are total (operating) transfers per capita, total taxation per capita (includes grants-in-licu), total expenditures per capita, and population. A five year period has been used in each case to establish the rates of change. The schematic nature of this figure should be stressed since extreme deviations were smoothed out when constructing the slopes indicating the rates of change.

The municipal populations used in calculating the per capita values

²It should be noted that the senior government transfers shown in Table 5-5 do not include capital grants. This statement also applies to the territorial and provincial intermunicipal sample blocks.

have been tabulated in Table 5-17.

PART III - CHAPTER 5A

A. NORTHWEST TERRITORIES INTER-MUNICIPAL COMPARISONS

INTRODUCTION

The six tax-based municipalities (as at the beginning of 1974) comprise the N.W.T. selections. Municipal finance data for each, during the period 1968 to 1972 is displayed in the fold-out Tables 5A-1 and 5A-2. The averages presented at the foot of these tables do not include data for Pine Point and Fort Simpson. Data for only one year was available for the latter municipalities. Each municipality is discussed in turn in terms of some brief background information and percentage and per capita revenues and expenditures. Detailed financial information on the municipalities may be found in Volume II of this report. Comparative information with the other selections employed in this study may be found in Tables 5-1 to 5-16. This information is arranged according to the main municipal finance sub-categories.

Discussion of the data in this chapter is limited primarily to operating revenues and expenditures. Some discussion of the sources and application of capital funds may be found in Chapter 6B in the sub-section concerning water and sewer service.

1. YELLOWKNIFE

Yellowknife, the capital and largest centre of the N.W.T. is about 600 air miles north of Edmonton. It is the only city in the N.W.T. having attained this status in 1970. Prior to 1967 the community's economic base was dominated by the two gold mines, located within the municipal boundaries, and also regional service centre functions. With the establishment of the headquarters of the territorial government in Yellowknife and the conferment of capital status in 1967 the economic base became diversified strongly into the area of government functions. Rapid population growth set in after the 1967 moves. The present population, estimated to lie in the range of 7,000 to 9,000 is now more than double the 1967 total of about 3,500. A small proportion, probably under 10% of the population is native. There is no indication of any let-up in the city's current rapid growth.

Percentage Revenue: In the period 1968 to 1972 senior government transfers consistently accounted for approximately 15% of total revenues. One pattern associated with the transfers has been the slight

decline in importance of unconditional transfers in relation to conditional transfers. However, the overall emphasis has remained decidedly on the unconditional form of grant support. Sales of services have grown in importance over the period but still constitute a small proportion of total revenue. The importance of "other revenue from own sources" in 1971 and 1972 is largely a reflection of successful land development ventures undertaken by the city. The increasing significance of the latter two sources of revenue has caused the importance of tax revenue to decline from about 70% of total revenues in 1968 to about 55% in 1972.

In Yellowknife the significance of real property taxation for general municipal purposes is consistently exceeded by local taxation, reflecting the city's unique position among the N.W.T. municipalities in having to meet the requisition of the two school districts located in the city. School taxation has always constituted just over 50% of direct taxation revenue. Business taxation accounts for just over 5% of total taxation revenue on average and even more modest use has been made of trailer licensing, frontage taxes and local improvement charges. The poll tax was abandoned in 1970 because of collection difficulties. [A franchise tax on the city's power distributors was initiated in 1972 and realized over \$100,000. This revenue is currently classified as "other revenue own sources."]

Per Capita Revenue: Direct taxation revenue per capita is the highest of all the N.W.T. municipalities. In addition, per capita grants-in-lieu receipts have maintained levels well above the N.W.T. average (although

the difference from average has contracted over the period). Sales of services is strongly dominated by utility revenue. In per capita terms, the low position of Yellowknife in relation to Fort Smith and Hay River is caused in part by the absence of specific sewer service charges, (these are currently met out of general taxation but there are plans to introduce such charges in the near future).

As with Hay River, but to a stronger degree in Yellowknife, land development activity in recent years has resulted in unusually high per capita figures for the revenue category "other revenue from own sources."

Transfers from the territorial government accounts for all operating grants received by Yellowknife. The per capita level of unconditional transfers for Yellowknife has been close to if not the greatest of any N.W.T. municipalities in the period under study. Conditional grant support has been at a level similar to that for Inuvik and Hay River but significantly below the level attained by Fort Smith. The grants have been mainly for road maintenance, recreation and truck water delivery purposes.

Percentage Expenditure: In 1972 the major expenditure category for Yellowknife was education. Over the period considered, however, it has accounted for a declining proportion of total expenditures. A similar pattern is present for environmental health expenditures, the second largest expenditure category in 1972 and in 1968. These declines appear to have been realized as a result of the increasing importance of expenditures on protective services, environmental development, recreation and debt charges.

Slight declines may also be noted for expenditures on general government and capital items from general revenue. Transportation expenditures show virtually no change in percentage importance over the period. As with all N.W.T. municipalities expenditures on public health and social welfare are respectively negligible or non-existent.

Per Capita Expenditures: Despite the decline in percentage terms, expenditures on general government have tended to increase in per capita terms to levels above the average. Yellowknife's expenditures on protective services are well above those of the other N.W.T. communities in per capita terms. This appears to have been a function of large annual increases in expenditures for both fire protection and bylaw enforcement services. By contrast the city's per capita expenditures on transportation services has in recent years been the lowest of the four main municipalities. Environmental health per capita expenditures in Yellowknife have consistently been at a very high level. This pattern is probably caused largely by, what are from a servicing point of view, especially difficult terrain conditions.

The substantial land development expenditures in 1971 and 1972 dominate Yellowknife's per capita expenditures on environmental development. The related accounting procedure for this category lowers the Yellowknife figure for capital expenditures from general revenue to a level well below that of the other N.W.T. communities. It is clearly necessary to consider both of these categories together where land development is a function undertaken by a municipality.

It is for education that Yellowknife's per capita expenditures are

most out of line with the pattern for other N.W.T. municipalities. These expenditures constitute a significant imposition on the city's revenues to a degree not remotely approached in the other municipalities.

Per capita expenditures by Yellowknife on recreation and cultural services have tended to fall below the average for the main N.W.T. municipalities. It may be anticipated that the Yellowknife expenditures on recreation and cultural services will rise substantially in the future with the pending construction of the civic centre complex.

The pressing capital project demands arising from the city's recent rapid growth is reflected in the rising and high Yellowknife per capita expenditure for debt charges. In 1972 debt charges accounted for just over 10% of total expenditures according to this consolidation.

Referring to Figure 5-17, it may be noted that, on average, over the period from 1968 to 1972, senior government transfers to Yellowknife more than kept pace with the rate of expenditure growth. Taxation growth lagged considerably behind these items, however, sales of services and "other revenue from own sources" have compensated in large part for this lag. The small difference between expenditure growth and population growth indicates that there is little likelihood that significant gains in service level were achieved by Yellowknife over the period.

2. HAY RIVER

Hay River is the second major centre in the N.W.T. after Yellowknife. It is located on the south shore of Great Slave Lake about 450 miles north of Edmonton, with which it has road, rail and air connections. Hay River has played an important part in servicing the general

economic boom conditions which have characterized the Mackenzie Valley and Delta in recent years. Although the town is primarily a transportation centre it has a relatively well-diversified economic base which includes fishing, construction, and regional service centre functions.

In 1959 Hay River's population was estimated to be 1,500, by 1966 it had risen to over 2,000, and at the present time it is estimated to be in the range of 3,500 to 4,500. A sizable Indian or Metis population resides within the town's boundaries. A high level of transiency also characterizes the town's population.

Percentage Revenue: Over the five year period studied, the proportion of revenue derived from senior government transfers remained at a relatively constant amount, averaging about 20% of total revenues. Sales of services was also a relatively stable source lying in the range of 15 - 20% of total revenues while grants-in-lieu of taxation ranged between 6% and 10%. The percentage derived from "other revenue from own sources" demonstrated a slightly more erratic pattern reflecting the activity in the development funds. Taxation was a fairly variable source, again relating in part to development fund activity. The combined amount of taxation and grants-in-lieu accounted for about 50% of total revenue in 1968 and 1972.

The major source of taxation in Hay River has consistently been real property taxation for municipal purposes. However, its significance has been gradually declining owing to the increasing importance of school taxation. Real property taxation in 1972 accounted for just under half of the total taxation revenue, having accounted for about

two-thirds in 1972. Business taxation similarly declined in relative importance, falling from about 15% to 10% of total taxation revenue. By contrast, school taxation rose from 20% to almost 30% of the total direct taxation between 1968 and 1972. A franchise tax on Alberta Power, and increasing yields from the frontage tax associated with the Residential Development Fund, contributed to the diversification of the revenue base.

Per Capita Revenue: Omitting consideration of Pine Point, Hay River ranks second to Yellowknife in terms of per capita taxation for the main N.W.T. municipalities. In terms of grants-in-lieu of taxation, however, Hay River receives least on a per capita basis. This is in part a reflection of the town's well diversified economic base and in part related to the presence of only area (rather than regional) government offices.

The major sales of services category, accounting for about two-thirds of the total in 1972, is utility revenues. It is followed in importance by recreation revenues. This overall source of revenue has almost doubled in importance in per capita terms between 1968 and 1972.

By including the proceeds of development funds, the category "other revenue from own sources" is boosted, especially in certain years, to unusually significant proportions. A similar per capita pattern may be identified for this category in Yellowknife and in recent years in Inuvik.

Federal transfers have been of negligible importance to Hay River. The territorial unconditional grant is the major transfer received, usually exceeding territorial conditional operating grants by two- or

three-fold. The latter are mainly for road and sidewalk maintenance and recreation.

From a territorial perspective May River has received a relatively similar level of grant support as Yellowknife, in both unconditional and conditional grant areas. In 1972 it had moved ahead of the other municipalities in terms of unconditional support but had fallen behind in terms of conditional grants.

Percentage Expenditures: In 1972 the major expenditure category was recreation, having tripled in importance over the 1968 position. By contrast, environmental health services maintained a consistently high position in terms of total expenditures. The category, capital expenditures from general revenue, has varied greatly in importance but in certain years it accounted for the major proportion of total expenditures. The development fund activity which explains much of the variation also largely explains the overall and variable importance of the debt charges category.

Education expenditures have almost doubled in importance over the period but still remain as a small percentage of total expenditures. Both the categories of general government and transportation have tended to decline slightly in importance in relation to other categories. Protective services have maintained a stable and lowly position. Public health service expenditures have virtually disappeared. Social welfare expenditures are non-existent.

In recent years May River per capita expenditures on general government have compared very favourably with the other two well

established municipalities. Expenditures on protective services have remained at a low level relative to Yellowknife because of the absence (until 1973) of a substantial bylaw enforcement function. Transportation expenditures were slightly above average possibly on account of the public transit function which was not present for the other municipalities. Expenditures on environmental health were the lowest of the three main municipalities.

Per capita expenditures on education in Hay River were still well below the figure for Yellowknife in 1972 although the differential was reduced from one-sixth to one-quarter. Per capita expenditures on recreation and community services in Hay River were by far the highest of any N.W.T. municipality from 1970 onwards. A major explanation for this is the presence of a large recreation arena which has proved very expensive to operate.

Expenditures on debt charges have been running at a high level owing largely to the substantial development activity being undertaken by the town. This also accounts for the similarly high level of capital expenditures from general revenue.

In terms of total expenditures per capita, it is interesting to note that Hay River lagged behind Fort Smith in 1971 and 1972. Fort Smith has had a relatively stable population whereas Hay River's has grown rapidly (Figure 5-17). Between 1968 and 1972 per capita expenditures grew by a greater amount in Fort Smith than in Hay River. It is unlikely that Hay River's needs have declined with rapid population growth. Instead it appears that expenditures have only just been able to keep

pace with the needs of a rapidly growing population. Hay River does appear to have fared better than Yellowknife, however, in that per capita expenditures growth has been relatively greater than population growth. As for Yellowknife, growth of government transfers for Hay River has more than kept pace with expenditures growth.

3. FORT SMITH

Fort Smith was incorporated as a town in 1967. At this time it lost its capital status to Yellowknife. Fort Smith has continued its historic role as a federal and territorial government centre to the present day, although its coverage is now regional rather than territorial. Although government and institutions provide the major wage employment, some logging and construction activity is present also. Population growth has been much less marked in Fort Smith compared with the other N.W.T. municipalities. The population is about 2,500 at present. About 60% of the population is Indian or Metis which is a somewhat similar level to that found in Inuvik and Fort Simpson but is greater than is found in Hay River and, in particular, Yellowknife. Transients are not a major factor in Fort Smith.

Percentage Revenue: During the study period senior government transfers consistently accounted for about 25% to 35% of total revenues received by Fort Smith. This relatively high level of grant support, by comparison with Yellowknife and Hay River, is further distinguished by the relative importance of conditional over unconditional transfers. (The opposite tends to be the case for the other N.W.T. municipalities.) Sales of services, although set at a relatively high level in 1972 had

declined significantly from its 1968 percentage position. "Other revenue from own sources" grew slightly over the period but in absolute terms the category continued to be of only minor significance. The combined total of grants-in-lieu and taxation remained a remarkably consistent portion (approximately 42%) of total revenues.

Real property taxation for municipal purposes has been the major item of direct taxation revenue accounting for about 55 - 65% of the total. School taxation accounted for about 25 - 35% of the total with the balance being derived essentially from local improvement charges.

Per Capita Revenue: Per capita taxation trends establish the town in third position in the N.W.T. well behind Yellowknife and Hay River. A major explanation for this feature is the limited industrial and commercial economic base in the town. There is no business taxation. Per capita sales of services revenue has constantly been well above the N.W.T. average, and again utility revenues constitute by far the major portion of this category.

The limited growth potential of the town has severely limited the opportunities for undertaking land development projects. As a result, Fort Smith exhibits characteristics for "other revenue from own sources" not unlike those which may be found in many small slow-growing municipalities in southern Canada.

Conditional grants to Fort Smith have been for the usual purposes of road and sidewalk maintenance, recreation and water delivery, with the latter being relatively more important than in the other municipalities, emphasizing the lack of piped utility services to a significant

segment (mainly native) of the town's population. The unusually high per capita conditional grant support present for 1972 is explained very largely by the Federal Local Initiatives Program assistance.

Per capita unconditional grant support has generally been well below the levels found in Yellowknife and Hay River. This is a reflection of the limited and slowly growing taxable assessment of the town. The unconditional grant formula was ten mills on the taxable assessment prior to the change to the per capita basis in 1973.

Percentage Expenditures: A notable feature of the percentage trends for expenditures in Fort Smith has been their erratic nature. Rather large variations are present from year to year for different categories and it is difficult to place a useful interpretation on the patterns.

The greatest variability exists with capital expenditure from general revenue. Variability is also a marked feature of expenditures on transportation services, but it is generally correct to state that this item has accounted for a large portion of total expenditures in most years. Expenditures on environmental health services happened to be the largest category in 1972. This category also shows some consistency over the five year period. The 1972 figure for general government services halted a downward trend, returning it to a position of importance in terms of total expenditures.

Education expenditures have remained a very consistent and relatively small portion of the total. Recreation expenditures have also accounted for a relatively stable percentage. Debt charges and protective services have maintained a position of small, but growing

importance. This is especially true for debt charges.

Per Capita Expenditures: In 1972 per capita expenditures on general government were the highest of any N.W.T. municipality. It is improper to read too much into this trend in view of the erratic behaviour of Fort Smith's finances in the past. Per capita expenditures on protective services have remained at relatively low levels by comparison with the rest of the N.W.T. The levels did jump noticeably in 1971 and 1972 when more attention was given to the bylaw enforcement function.

Per capita expenditures on transportation services have consistently been at significantly higher levels than the rest of the N.W.T. (with the exception of Fort Simpson). Fort Smith appears to place a relatively high priority on this item, but the dispersed nature of the community may also be an important contributor to the higher expenditures.

Environmental health per capita expenditures in Fort Smith have consistently exceeded the N.W.T. average and rank second highest after Yellowknife. The dispersed nature of the community may also be a factor in increasing expenditures for this category. Terrain conditions are good with permafrost absent. However, the river source presents a substantial silt problem and pumping up from the river is required.

Environmental development per capita expenditures were only of significance in 1972 when attention was given to reducing landslide and fire hazards. Some staff housing was also initiated in 1972 but overall the activity in this area remained at a low level.

Fort Smith fares very well as regards per capita expenditures on education, the level being consistently below those found in Yellowknife

and Hay River, the two other well-developed municipalities in the Territories. Recreation per capita expenditures have been well above the N.W.T. average, though not of the dimensions of the expenditures in Hay River. Development of recreation and cultural services appears to have been progressing at an even pace and a high level in Fort Smith for a longer period of time than has been the case in the rest of the N.W.T.

The relatively slow growth of Fort Smith has maintained per capita debt charge expenditures at a relatively low level by comparison with Yellowknife and Hay River. The high level present for 1972 is exceptional in that it is accounted for in large part by short term borrowing to cover late grants-in-lieu payments.

The patterns present for Fort Smith in Figure 5-17 indicate that government transfers and taxation revenue growth more than kept pace with expenditures growth (all in per capita terms). Growth in expenditures was well in excess of population growth, improving the likelihood that positive gains in the quality and quantity of municipal services were achieved.

4. INUVIK

Inuvik is the administrative centre for the Mackenzie Delta area of the N.W.T. It is located north of the Arctic Circle, about 1,200 miles from Edmonton. Inuvik is a relatively new community created by the federal government in the late nineteen-fifties. It was planned initially for a maximum population of 1,300. Rapid population growth in the late sixties took the total to over 3,000 in 1970. At the present time the population is estimated to be over 4,000. The explor-

ation for oil and gas in the Delta and the Arctic Islands was, by necessity, based on the town of Inuvik with its air and river/ocean transportation facilities. This activity continues to influence to a large degree the high level of transiency in the town. About half the population is Native or Metis. Employment of the permanent population is mostly government-related. Other employment is found in transportation, construction and the commercial sector. The municipality is still undergoing a period of rapid growth at present.

Percentage Revenue: The consistent level of senior government grant support present for Yellowknife, Hay River and Fort Smith is strikingly absent for Inuvik. Transfers declined from over 50% of total revenues in 1968 to just over 20% in 1972. One reason for this change was the much increased importance of the category "other revenue from own sources" in 1971 and 1972, when land sales brought large revenues. At the same time, and despite some large annual variations, the combined amount of direct taxation and grants-in-lieu payments grew in importance by several percentage points, accounting for 46% of total revenues in 1972. In Inuvik the grants-in-lieu portion of taxation revenue has always been dominant. In recent years, however, its relative importance, once over double the direct taxation revenue, has been substantially reduced. The net effect of the activity in the other categories is to produce declining, and in 1972, almost negligible revenue from sales of services.

Inuvik's simple taxation structure is just dominated by property taxation for municipal purposes. School taxation has varied from about

one-third to almost one-half of taxation. In per capita terms there has been very rapid growth of direct taxation revenue since 1968 but in 1972 the level still fell well short of that for Fort Smith, its nearest neighbour on the municipal hierarchy. Per capita grants-in-lieu payments have generally been above average. In contrast to the other municipalities, even in the most recent years, federal payments of grants-in-lieu have exceeded territorial payments of this item.

The explanation for the very low percapita sales of service revenue lies in the fact that Inuvik has only minor involvement in the provision of water and sewer facilities. The utilidor system which supplies most of the town is operated by the Crown agency, N.C.P.C., and town involvement is limited to contracting out truck utility servicing for the area not serviced by the system. Despite this feature, even if utility revenues were removed from sales of services for the other municipalities it is likely that Inuvik's per capita revenue from this category would remain relatively low.

Recent town involvement in housing and, especially, land development has meant substantial increases in "other revenue from own sources." In per capita terms this category is now of prime importance and compares well with other municipalities active in this area.

As was the case in Fort Smith, the taxable basis for the unconditional grant prior to 1973 mitigated against Inuvik, with its low level of private property, receiving a high level of grant support from this source. Conditional transfers per capita were little different in Inuvik from the values for Yellowknife and Hay River. As in these

latter communities, Inuvik also received the greater proportion of grant support in the form of unconditional transfers. Despite the overall below average level of per capita conditional transfers for Inuvik, the town appears to have received benefit from a large number of grant programs. However, only grants for road maintenance, recreation and drainage tend to be more than minor in amount.

Percentage Expenditures: The major expenditure categories in Inuvik in 1972 were for environmental development and capital expenditures from general revenue. Inuvik has placed some emphasis on the latter category rather than incur debt charges, which have always remained at a low level. The significance of environmental development is directly associated with the land development undertaken in recent years.

Transportation services account for the next highest expenditure category having consistently maintained an important position. General government expenditures have steadily declined in recent years as a proportion of total expenditures. Environmental health expenditures have been declining in importance, caused mainly by the absence of substantial town involvement in utility servicing. Education and recreation expenditures form similarly low proportions of the total.

Per Capita Expenditures: Inuvik expends a relatively low per capita amount on general government. This may be explained in part by the absence of a responsibility for administering the utilidor system, or it may reflect the existence of more pressing and costly expenditure demands on a limited revenue base. Inuvik's per capita expendi-

tures on protective services are high by comparison with Hay River and Fort Smith. This pattern is accentuated when it is noted that no bylaw enforcement function expenses are present for Inuvik. This appears to constitute a straight case of higher northern costs. Above average expenditures per capita may be noted for Inuvik for transportation services in recent years.

For reasons mentioned previously per capita environmental health expenditures in Inuvik are well below average in comparison with the other major municipalities. Inuvik has consistently had the lowest education expenditures per capita, this being a direct function of its low taxable assessment.

Inuvik's per capita expenditures on recreation and cultural services lag well behind the levels of Hay River, Yellowknife and Fort Smith. Per capita debt charges expenditures are almost negligible by comparison with the more developed municipalities but per capita capital expenditures from general revenue have been above average in certain years.

Referring to Figure 5-17 it may be noted that there is a considerable difference between per capita expenditures growth and population growth for Inuvik. The difference is about as large as is found for Fort Smith, but the actual growth rates for Fort Smith are much more conservative than Inuvik's. Per capita taxation revenue more than kept pace with expenditure growth whereas, in contrast to the three other municipalities, growth in government transfers lagged well behind. The fact that expenditure growth was so much greater than population growth seems to be as much, if not more, of a function of a very low base of

development in 1968 than marked advances in the quality and quantity of municipal services provided. In addition, land development activity has recently been of greater relative importance in Inuvik in comparison to either Yellowknife or Hay River. This may have introduced a distorting effect on the above data.

5. FORT SIMPSON

Fort Simpson, which became a village in 1973 and is located about 900 miles north of Edmonton, became the most northerly terminal of The Mackenzie Highway in 1971. The coming of the highway re-inforced the period of rapid population growth which is still being experienced by the village. In 1966 the population of the community was over 700, by 1971 it reached 1,000 and in 1973 it was almost 1,300. About half the present population is non-native. Transients are an important factor during the construction seasons. Government is still the major employer in Fort Simpson. Construction is also important as are general regional service centre functions.

Revenue: The first, and presently the only, year long period of actual financial data for Fort Simpson is from March 1971 to March 1972. At this time Fort Simpson was a hamlet and its revenue structure reflects its infancy as a municipality. Over 50% of total revenues was derived from senior government transfers with only slightly over 5% coming from direct taxation. Grants-in-lieu comprised almost 35% of total revenues with the small balance remaining coming from sales of services and other revenue from own sources.

Direct taxation per capita for this year was extremely low but not unlike the level for Inuvik in 1968. Grants-in-lieu payments per capita were about average, however. Unconditional transfers per capita were similarly up to average and conditional transfers substantially exceeded it. The other revenue sources produced very low per capita levels.

Expenditure: The major expenditure category with well above average per capita levels was transportation services, reflecting in part the emphasis on the provision of the most basic services, but also the effect of extraordinary expenditures for 'gravelling' supplies.

General government was also an abnormally important expenditure category. Environmental health expenditures would have been more significant were it not for the fact that, at the time, the hamlet did not operate the piped utility system. Environmental development appears significant but this is mainly because of the ordinary Local Initiative Program expenditures. Education expenditures were absent but other information (Education Finance Study) indicates that Fort Simpson paid an estimated \$4,775 in school taxation in 1971 (\$4.7 per capita). Expenditures on both protective and recreation services were at very low levels.

6. PINE POINT

Pine Point, located about 50 miles from Hay River, is the townsite to the Cominco mine development. The community became a hamlet in 1969, a village in 1973 and a town in April 1974. Development of the community began in the early sixties. It was initially planned for 1,000

residents and an ultimate population of 2,000. In 1966 the population was about 500, by 1971 it had risen to about 1,200, and it is estimated by some to be about 1,800 at present. A small proportion, about 10% is native.

The Cominco zinc mine almost totally dominates the community's economic base. The company is a source of considerable assistance to the town, particularly in the areas of recreation, fire protection and health services. In other service areas such as water and sewer or public works it has been effectively acting as a contractor to the municipality. Pine Point probably will have the healthiest tax base of all the N.W.T. municipalities when the minesite assessment comes within the extended municipal boundaries.

Revenue: The only available year long actual financial data for Pine Point is again March 1971 to March 1972. Like Fort Simpson, Pine Point was still a hamlet at this time. Here the similarities disappear, however, as Pine Point emerges as a prosperous community by virtue of its position as townsite to the Cominco mine. The bulk of the assessment during the period under study appears to be accounted for by Cominco's ownership interest in accommodation for its employees. A limited amount of private non-company property was also present. This relatively healthy assessment base produced taxation revenues accounting for over 45% of total revenues. In per capita terms this category exceeds that for Yellowknife in 1971. Another remarkable feature of the Pine Point revenue structure is the great importance of grants-in-lieu payments. Most of these were derived by an \$80,000 donation from

Cominco, in respect of the minesite, on which it then paid no official taxes. Grants-in-lieu payments from the senior governments accounted for just over 30% of total grants-in-lieu. This, in per capita terms, would place it below average if only government grants-in-lieu were considered.

In the face of heavy taxation revenue, total senior government transfers shrank to 12% of total revenues. In per capita terms, however, the level of grant support compared favourably with the 1971 levels for Yellowknife, Inuvik and Hay River. Similarly sales of services accounted for a small portion of total revenues in percentage terms but appeared comparatively more important in per capita terms. Utility revenue appears to be very low suggesting that the hamlet was not fully involved with the administration aspect of the system at the time or its prosperity permitted it to reduce charges.

Expenditures: The major portion of the hamlet's expenditures was for environmental health purposes, which covered primarily the operating costs of the water and sewer system. The resulting per capita value is very high by comparison with the other N.W.T. municipalities. It is difficult to fully account for this position but it is believed that large capital expenditures are included in the bills served to the community by Cominco. Cominco acts as a contractor in the supply of the water and sewer utility services. Further details are provided in Chapter 6B (Water and Sewer Services). Expenditures on recreation and cultural services also comprise an unusually high portion of total expenditures. Again the influence of Cominco involvement through contributions is the most likely explanatory factor, but it proved

difficult to detail this influence in terms of services provided.

Such extremes reduce other categories to relatively minor importance, except perhaps in the case of education where the high assessment elicits a per capita levy in excess of that found in the other non-school district municipalities.

General government expenditures constitute a relatively small portion of total expenditures and in addition represent the lowest N.W.T. level in per capita terms.

The dominating presence of Cominco, influencing as it does many of the municipality's operations, may serve to reduce the usual complications of municipal administration. Expenditures on protective services are confined to a partial involvement in fire protection with Cominco sharing the responsibility. This results in very low per capita expenditures in this category.

Transportation services expenditures are relatively unimportant in both percentage and per capita terms. The low per capita value is possibly on account of the compact and well-planned layout of the community.

Environmental development was not an element in municipal operations. Debt charges were non-existent, capital expenditures from revenue being adequate to cover relatively limited needs.

PART III - CHAPTER 5B

BRITISH COLUMBIA - NORTHWEST TERRITORIES COMPARISONS

The British Columbia municipalities selected for the comparative study are the Village of Fort Nelson and the District of Mackenzie.

A. BACKGROUND INFORMATION ON THE B.C. SELECTIONS.

Fort Nelson is located in north-east B.C. at Mile 500 on the Alaska Highway, 250 miles north of Fort St. John. It is a rapidly growing community: in 1960 the population was about 300, by 1966 it was almost 1,000, and in late 1973 it was estimated to be 3,000. A small proportion of the population, about 15%, is native. The transient population is substantial and was estimated to be about 500 in early 1974.

Fort Nelson benefits from a varied economic base for the region. The municipality mainly services industries based on the region's forest, oil, gas and copper resources. It also has a good tourist trade. Most of the industrial installations, including the northern terminal of B.C. Rail, lie outside the municipal boundaries, but the village derives some revenue from them through special arrangements with the province and the Peace-Liard Regional District.

Fort Nelson was incorporated as a village in April 1971 having been an improvement district (water and sewer services) since 1959. It is assured of becoming a town after the next census in 1976, although consideration is being given to district status instead, since this may be a more suitable administrative arrangement. At present, in addition to the main industrial plants, about 1,200 people live outside the

municipal boundary deriving significant benefit from the municipality's presence. This group is taxed at a very low rate (10 mills) by the province, with a limited amount of this revenue being made available to the town, via the regional district.

Fort Nelson, despite its isolation, participates to an important degree in regional district activities, essentially because of the significant amount of population and industrial assessment just outside its boundaries. A benefiting area surrounding the village has been designated which gives the village taxation revenue, in return for the provision of services which are presently limited to recreation and fire protection. This area does not encompass all the afore-mentioned population and industry. Some perspective on the situation may be obtained from assessment base data. In 1973 the village's taxable assessment stood at \$4.2 million and the benefiting area (about 25 square miles surrounding the village) had an assessment of about \$11.0 million (due to rise to \$26 million in 1974). Fort Nelson School District collects taxes from almost all the population and industry within the effective sphere of influence of Fort Nelson. In 1973 the school district drew on a total taxable assessment of over \$36 million. District status would probably bring at least this level of assessment.

Mackenzie is located 120 miles north of Prince George in northern B.C.. The term "instant town" is often applied to Mackenzie, which until 1965 was wilderness. In that year the District of Mackenzie was incorporated. Population growth has been extremely rapid rising from virtually zero in 1966 to 2,332 in 1971 and 5,000 in 1973.

Forestry is the base industry for the District. There are two pulp mills and five sawmills. The three main forest industries employ ten major contractors plus fifty-five small contractors for logging, hauling and timber salvage programs. The major industries in their logging, pulp and sawmill operations employed directly almost 1,400 people in 1973.

The municipal district arrangement makes for a tidy municipal scene by comparison with Fort Nelson. Mackenzie has enjoyed the advantage of relatively good planning. Mackenzie is also quite self-contained as a district and this, in addition to its remoteness from other centres, reduces the need for joint operations with the regional district. By virtue of its considerable industrial assessment, Mackenzie is, on the surface, a relatively well-off municipality, but the rapid growth at present is creating some financial stress.

B. FORT NELSON, MACKENZIE/B.C. INTERMUNICIPAL BLOCK

Reference is made primarily to Tables 5B-1 and 5B-2. It should be noted that since Fort Nelson was incorporated in the course of 1971, and a full year's financial data for the entire year were not available. Consequently 1972 financial data for Fort Nelson were used.

Percentage Revenue: Taxation, conditional transfers, and other revenues from own sources account for a below average proportion of total revenue for Fort Nelson. A relatively major item of revenue is sales of service which is well above the provincial average. As will be noted later, this fact is directly related to very high utility rates. Unconditional transfers ranked slightly above the provincial average in importance as a

revenue source. (It should be indicated that in the tables the per capita grant has been treated as an unconditional transfer even though there were conditions attached to it prior to 1973.) Total transfers to Fort Nelson comprised 15% of total revenue. This is below the provincial averages, however, they include large social welfare conditional transfers to the towns and cities.

Mackenzie displays a percentage revenue breakdown which is much closer to the provincial average. The high education levy associated with the industrial assessment boosts this component of total taxation. Non-tax revenue sources (excluding transfers) tend to have above average importance to Mackenzie. This feature is countered by the well below average importance of transfers. Although a district, Mackenzie is small enough to be relieved of social welfare financial responsibilities, so limiting conditional transfers. In addition, its very rapid population growth strongly mitigated against it receiving a high level of unconditional transfers until 1972, when 1971 population data were used in the calculations.

Per Capita Revenue: Taxation per capita is well below average for Fort Nelson. By contrast Mackenzie displays well above average values, reflecting its high industrial assessment and also the scope for the support of a greater population. Grants-in-lieu per capita are below average in both municipalities but the difference in dollar terms is negligible.

Fort Nelson claims to have the highest utility rates in B.C. and it is this factor which boosts per capita sales of service. The Fort

Nelson figure is exceeded only by that for Mackenzie, but Mackenzie derives substantial sales of service revenue from transportation and recreation services in addition to water and sewer charges.

As might be expected with a uniform per capita 'unconditional' grant scheme, Fort Nelson lies close to the provincial averages in terms of unconditional transfers. In 1971 the grant was fixed at \$25 per capita and was raised to \$30 for 1972. The sample data indicate deviations from these levels. The explanation lies with population computations. When the grant was paid in 1971 census data for 1966 were still utilized in the computations. This procedure favoured slow growth or declining communities and worked against rapidly growing ones, most notably Mackenzie. Fort Nelson also enjoyed rapid growth between 1971 and 1972 but use of the former year's population figure meant a lower payout than would have been realized had the growth been taken into account.

Fort Nelson received well below average conditional transfers in per capita terms. Although it compared most favourably in this area with other villages its total pales into insignificance beside the levels of conditional grant support to towns and cities. Much of the explanation for this lies in the fact that the great majority of conditional transfers to the latter municipalities are tied to social welfare costs. Villages are not required to provide such a service, receiving it instead 'free' through the courtesy of the province and the town, cities and some districts. An indication of the significance of this feature is provided in Table 5B-1. Once social welfare grants are excluded from conditional transfers Fort Nelson is seen to be placed in a position well above the provincial average. This position is due primarily to

the relatively large importance of regional district conditional transfers to Fort Nelson. Mackenzie is set up in such a way as to eliminate the need for such transfers and ranks just below the provincial average when social welfare transfers are excluded from total conditional transfers.

The home-owner grant receipts of each municipality are presented in per capita terms in Table 5B-1. It must be stressed that these grants are made to certain individuals in the municipality and not to the municipalities directly. They do have an influence on municipal revenues, however, by opening up more property tax room if required and also in aiding tax collection. Both selections rank well below the provincial averages for this category.

Per Capita Expenditures: Fort Nelson spends the greatest amount per capita of any municipality on environmental health. This is essentially because of an expensive water supply system. The expense attached to this system is not associated particularly with higher northern operational cost. The system originated in the late fifties and was extended in the early sixties to serve a population numbering in the hundreds. Little or no provision was made for future expansion. In addition early subdivision planning did not recognize the needs for a well designed system. Five acre lots and uncontrolled strip development were common initially. Later the lot size was reduced somewhat (to 100 feet by 150 feet) but no thought was given to land contours.

When the village assumed responsibility for the water system from the improvement district in 1971 it had also to assume a related debenture debt burden of \$750,000 and extensions to the system in 1972

raised this by \$100,000. The ensuing debt charges have contributed the main to Fort Nelson's above average per capita debt charges expenditure. Mackenzie is in a similar position with regard to debt charges. However, Mackenzie's water supply system has been very well-planned. Further details on the utility systems in each municipality may be found in Chapter 6B (Water and Sewer Services).

In 1972 both systems were serving approximately the same population. The system at Mackenzie is very new and highly capital intensive. It has been well planned and the major expenditure item is for debt servicing. The Fort Nelson system is no longer capital intensive and has become very expensive to operate, mainly on account of pumping costs. It should be noted that these costs would have been higher had a local company not provided the river pumps free of any rental charge. Maintenance costs are also a large item caused in part by about 20 to 25 breaks per year. In addition, from all accounts, it appears that the adequacy of the system is seriously in question so much so that almost \$2 million in capital expenditures are envisaged in the immediate future.

Both Fort Nelson and particularly Mackenzie rank well above average in per capita general government expenditures. This is understandable in part because of the early stage of development of both selections, but possibly their high rate of growth also is a factor. Mackenzie's extremely high expenditures have been explained by a municipal official in terms of higher than normal salaries and employee benefits, high staff turnover and associated relocation costs, and high audit and legal fees to remedy fiscal accounting and reporting

problems in earlier years.

Fort Nelson's early stage of development mainly accounts for the relatively low per capita levels of expenditure on protective services and recreation and cultural services. Fort Nelson does not have to make any expenditures for police services until it becomes a district or until its population reaches 5,000 when it would take on city status. It is clear from recent budgets that expenditures on fire protection and recreation are rising rapidly and will continue to do so, mainly through the village's participation in regional district agreements. In return for providing these services to areas outside its borders, the village receives conditional transfers from the regional district. This gives the appearance that Fort Nelson is well off because of the transfers, but it should be borne in mind that these transfers are earned only through the village providing services to population and property outside its boundaries.

Mackenzie, although below the provincial average because of the absence, at present, of police contract costs, incurs much higher per capita expenditures for protective services than other small municipalities. This is because of the building inspection activity related to its rapid growth. Mackenzie ranks about average in terms of per capita expenditures on recreation and cultural services. It may be anticipated that these will rise rapidly after the imminent completion of a major recreation arena.

Lacking town or city status, Fort Nelson is not required to provide much in the way of administration or financing for social welfare ser-

vices. Consequently it receives no conditional transfers to assist with such costs. As a small district, Mackenzie is in a similar position to Fort Nelson.

The only extraordinary provincial recognition of Fort Nelson's special financial problems, arising from rapid growth, is in the area of transportation services. The village's partial responsibility for construction and maintenance of the major urban thoroughfares has been assumed by the provincial Department of Highways until 1976, by which time it is anticipated that the village will be on a better financial footing. It is estimated that by 1976 this concession will have saved the village about \$275,000 in capital expenditures and approximately \$40,000 annually in operating expenditures. Most local roads were paved while the community was unorganized and this has also contributed to reduce the transportation service expenditure somewhat. Mackenzie incurs very high per capita expenditures for transportation services. This is due largely to its responsibility for over 20 miles of gravel forestry roads outside the townsite but within the district. Mackenzie has not required much in the way of special treatment from the province for its growth problems. The strong industrial assessment base has mitigated against such special treatment.

Some appreciation of Fort Nelson's financial predicament is indicated by considering the relationship between total expenditures per capita and taxable assessment per capita. While per capita expenditures in Fort Nelson are close to the provincial average (excluding Vancouver), the taxable assessment available to meet these expenditures is approxi-

mately one-half of the provincial per capita average. Mackenzie also possesses some financial problems. Rapid growth has brought immediate demands for above average expenditures, while assessment has grown at a less rapid rate.

C. FORT NELSON, MACKENZIE/N.W.T. BLOCK

Reference is made in this subsection to the financial compilations in Volume II, Tables 5-1 to 5-16 in this volume, and Tables 5A-1 and 5A-2 on the N.W.T. Interpretation of the N.W.T. tables is restricted mainly to the years since 1971 on a per capita basis.

Per Capita Revenue: The most striking revenue difference between the N.W.T. municipalities and the B.C. selections is the high grants-in-lieu of taxes in the former, underlining the unique significance of government presence in the N.W.T. Taxation revenue per capita for Fort Nelson in recent years places it somewhere between Yellowknife (along with Pine Point) and Hay River. Taxation revenue per capita for Mackenzie is much higher than any of the N.W.T. municipalities including Pine Point. The high revenue from sales of services, which differentiates the B.C. selections from other B.C. municipalities, applies with similar force in the comparison with the N.W.T.

Because of their active participation in land development activity, the main N.W.T. municipalities outshine Fort Nelson in terms of "other revenue from own sources." Since there is no certainty that this source of revenue will continue to be so important for the N.W.T. municipalities, it is probably wise to refrain from placing too much significance on this

contrast. Even so, the performance of Yellowknife and May River in earlier years, before land development became important, indicates relatively high per capita returns from this revenue source. Mackenzie's performance for this revenue source is much more on a par with the main N.W.T. selections. Land sales are not a significant component, however, and much of Mackenzie's erratic showing appears to relate to trailer licencing and rentals.

For the purposes of this sub-section the per capita grant for 1972 is deemed to be conditional. With the other conditional transfers, which were solely for regional district services, Fort Nelson substantially exceeds values for the N.W.T. municipalities, with the exception of Fort Simpson and Fort Smith. At the same time, however, Fort Nelson received no unconditional transfers in 1972 whereas the N.W.T. block shows large amounts in this category. If transfers are considered in total, all the N.W.T. municipalities exceed the figure for Fort Nelson in 1972. This superior position is accentuated if the conditional transfers to support regional district services supplied by Fort Nelson are omitted. Mackenzie fares worse than Fort Nelson in the comparison with the N.W.T. on total transfers.

In 1973, the conditional transfers for Fort Nelson are essentially contributions towards costs for fire protection and the regional recreation and community centre located in the village. The per capita grant in 1973 is unconditional and if more accurate population figures had been employed, the figure would have stood at \$32 per capita instead of \$26.95 for Fort Nelson and \$17.61 for Mackenzie as shown in the

compilations and Table 5-5. In 1973 the N.W.T. municipalities received a per capita unconditional grant of \$35. The N.W.T. municipalities probably also suffer from low population estimates used by the government in calculating the grant. Allowance for this will probably lower the average unconditional grant for 1973 by a few dollars per capita. The effective N.W.T. per capita grant level would still be greater than the effective level of the same grant in B.C. but the difference would be small.

The N.W.T. municipalities are only placed in a gain position over the B.C. selections in terms of total transfers, through their receipt of conditional transfers to assist them in the delivery of services solely to their populations.

General government expenditure levels are relatively similar for Fort Nelson and the N.W.T. block with the exception of Inuvik and Pine Point. It is difficult to find a consistent explanation for this feature. Fort Simpson is like Fort Nelson in terms of its recent incorporation, however, Pine Point is in the same category, but has a much lower expenditure level. Yellowknife, like Fort Nelson, has been undergoing rapid growth and this apparently explains the similarity in levels. However, Inuvik has also been undergoing rapid growth yet it has a low level of expenditure. At the other end of the spectrum Fort Smith has had virtually no recent population growth yet it exceeds all others in expenditure level. Mackenzie's extremely high level of general government expenditures has already been explained in part, but these explanations do not help greatly in unravelling the inconsistencies outlined above.

It may also be noted that Mackenzie can much better afford such high level of expenditures because of its relative affluence.

The N.W.T. block, and particularly Yellowknife, spent in 1972, a greater amount on protective services than Fort Nelson. By 1973 Fort Nelson was spending more than the N.W.T. block with the exception of Yellowknife. This reflects the rapid expansion in fire protection services. If it is borne in mind that these expenditures cover additional population outside of its boundaries, Fort Nelson would be brought more into line with most of the N.W.T. block. Fire is the major expenditure item in this category for this group also. None of the municipalities make any expenditures for police services, however Yellowknife does incur significant amounts to cover by-law enforcement. This feature, in addition to relatively high fire protection expenditures, explains Yellowknife's substantial difference from the rest of the group. Yellowknife also exceeds the relatively high level of Mackenzie for expenditures on protective services. Mackenzie incurs no police or by-law enforcement expenditures, but does expend large amounts on building inspections.

Fort Nelson, by virtue of special assistance from the province and its history of paving, escapes the much higher level of transportation service expenditures incurred by all members of the N.W.T. block (excepting Pine Point). It can be deduced that if this special assistance were not provided, Fort Nelson would be faced with substantially higher expenditures than those presently made by the N.W.T. municipalities. This level would be understandable in view of the dispersed

nature of Fort Nelson and the relatively high traffic volumes to be contended with because of the Alaska Highway. Mackenzie's additional responsibilities for forestry roads outside the townsite result in a per capita level of transportation services expenditures in excess of most of the N.W.T. municipalities.

Environmental health expenditures in Fort Nelson do not appear so high in relation to the main N.W.T. municipalities as is the case with the B.C. sample. Pine Point, Yellowknife, and Fort Smith make higher levels of expenditure primarily on account of water supply system expenses, although garbage and sewer services are also relatively important. Inuvik and Fort Simpson do not operate major services involving environmental health expenditures. Mackenzie incurs relatively low per capita environmental health expenditures. Its water and sewer utility is not expensive to operate and garbage collection and disposal is in fact the main cost component.

All municipalities make negligible payments for public health and social welfare services.

Environmental development expenditures demonstrate an erratic pattern. Depending on the accounting method employed Fort Nelson and Mackenzie can be seen to compare closely with certain N.W.T. municipalities (e.g. Hay River), or differ substantially when land development is treated in terms of capital expenditures rather than operating expenditures. Whatever the accounting procedure it is believed that the B.C. selections are not involved in land development activity to the degree of Yellowknife, Hay River and Fort Smith.

Fort Nelson spends much more on education than all the N.W.T. municipalities with the notable exception of Yellowknife. The shortfall between Yellowknife and Fort Nelson is about as much as that between Fort Nelson and the other N.W.T. municipalities. Yellowknife appears to face the higher northern costs of education without the protection of a sizable assessment base, and without the preferential treatment accorded to the other N.W.T. municipalities. Because of its great ability to contribute to the provincial foundation program, Mackenzie effectively incurs extremely high expenditures for education.

As with protective services, recreation expenditures in Fort Nelson shot up between 1972 and 1973 when it reached a level in excess of that present in 1972 for Yellowknife, Fort Smith and Inuvik. As with fire protection it could be argued that this per capita level is high since it does not allow for the recreation services provided to those outside its boundaries. Such an adjustment would bring it more into line with the three N.W.T. municipalities mentioned and would leave it well short of the levels present in 1972 for Pine Point and Hay River. Most of the N.W.T. municipalities have been spending more per capita on recreation than Mackenzie in recent years. This situation will change soon when a new recreation complex at Mackenzie begins operations.

Per capita debt charge expenditures by Fort Nelson appear to be running at about the same level as for Yellowknife and Hay River. The rapid growth and recent incorporation of Fort Nelson are similar to features present for Fort Simpson and Inuvik. A major contrast, however, is the legacy of debt left to the village of Fort Nelson by the improve-

ment district. Had Fort Nelson been in the N.W.T. there is every possibility that some government agency would have either continued to operate the utility system or turned it over to the new village for a token sum and free of the burden of debt retirement payments. Mackenzie is carrying a much higher debt charge load than any of the N.W.T. municipalities. This is due to a combination of rapid growth and limited needs for capital grant assistance owing to the healthy tax base.

D. N.W.T. BLOCK/B.C. INTERMUNICIPAL BLOCK

Reference is made primarily to the averages presented in Tables 5A-1, 5A-2, 5B-1 and 5B-2.

Per Capita Revenue: A major revenue contrast between the two blocks is found in the much higher grants-in-lieu of taxes received in the N.W.T. When this revenue source is grouped with taxation in general, however, the average N.W.T. taxation revenue per capita is seen to be well below the B.C. provincial average (excluding Vancouver). Within the B.C. sample, variation exists to an apparently greater extent than is found in the N.W.T. The high values are representative of municipalities with a good industrial base such as Kitimat and Mackenzie. Yellowknife and Pine Point compare quite favourably with many of the municipalities sampled, including several cities. The other N.W.T. municipalities do not generally shape up so well.

On the average, per capita sales of services revenue is essentially the same in both jurisdictions. The land development activity of the N.W.T. municipalities tends to push up the N.W.T. "other revenue from

own sources" average to much higher levels than in B.C.

On the average, there is little or no difference between the groups in terms of unconditional transfers. The Province of B.C. favours this method of grant support over conditional transfers in the area of basic municipal services. At first glance this statement may appear surprising since the average conditional transfers in B.C. exceed those paid on the average to the N.W.T. municipalities. However, almost all conditional transfers in B.C. are paid out in connection with certain municipalities' involvement in administering and financing social welfare costs and/or in respect of regional district agreements where municipalities are compensated for providing services above and beyond those required within their own boundaries. Since N.W.T. municipalities are not involved in social welfare at all and since there are no regional district transactions, all the conditional transfers to the N.W.T. municipalities provide real benefits rather than illusory ones. To illustrate this point, social welfare transfers have been broken out of B.C. conditional transfers, (Table 5B-1). Much of the conditional transfers which remain are payments for regionally provided services.

Before leaving revenue comparisons, it should be pointed out that the home-owner grant payments could be construed as compensating municipalities for the 'negative' conditional transfers so prevalent in B.C. Allowance for this aspect would, on balance, bring B.C. and the N.W.T. into line with one another as far as total transfers are concerned. (It must be re-iterated that home-owner grants are technically not true

transfers to municipalities as such. Also, these grants have to be paid for in some other way, such as higher rates of income tax, sales tax, health premiums, etc.)

Finally, it may be noted that average total revenue per capita is significantly greater in B.C. in comparison to the N.W.T. The following consideration of per capita expenditures indicate that this gap is effectively closed when it is borne in mind that certain B.C. municipalities are required to perform services which are a territorial government responsibility in the N.W.T.

Average general government per capita expenditures are substantially greater in the N.W.T. by comparison with B.C. The two examples where N.W.T. expenditures are exceeded is in Mackenzie and Tahsis. Both are resource municipalities, but only Mackenzie is known to be experiencing rapid growth.

Cities and district, up until early 1974, were responsible for many aspects of administration of justice in B.C. These municipal units are still responsible for police service costs while N.W.T. municipalities receive policing services free of charge (except for by-law enforcement).

Per capita expenditures on fire protection tend to be high only for the large municipalities in B.C. and this pattern is also found in the N.W.T. in the case of Yellowknife. On the average, the N.W.T. municipalities escape with relatively light expenditures for protective services by comparison with B.C.

Transportation service expenditures in the N.W.T. are slightly above those for B.C. on the average. Additional northern costs may be

a real factor in this area. In addition it might have been expected that greater traffic densities in the B.C. municipalities would have elicited higher levels of expenditure compared to N.W.T. municipalities, but this does not appear to be the case, in average terms at least. It is interesting to note that the northern municipalities in the sample (Prince George, Kitimat, Fort St. John, Quesnel, Vanderhoof, Mackenzie and Chetwynd) consistently have relatively high levels of per capita expenditures for this function. This appears to support the hypothesis put forward earlier to explain the high N.W.T. levels of expenditure. Snow removal may also be an important expense for the B.C. municipalities.

A major area of contrast between the N.W.T. and B.C. is that of environmental health expenditures which tend to be substantially higher in the N.W.T. It seems likely that the peculiar environmental difficulties encountered in the N.W.T. are the main cause behind this difference which lies mainly with the utility systems. However, it is difficult to separate out the exact influence of such difficulties from neutral factors, such as topography in the case of Yellowknife. Piecemeal planning or the absence of design guidelines may also be a factor in higher system costs. The higher northern expenditures would be further accentuated if allowance had been made for the considerable amount of free capital assistance rendered by the territorial or federal governments in this service area.

The need in B.C. for large conditional transfers becomes understandable when municipal social welfare expenditures by cities, towns and districts, are considered. The largest municipal units in B.C. also

have to bear relatively high public health costs.

Were it not for the N.W.T. municipal involvement in land development the two jurisdictions might have relatively similar levels of expenditure in the area of environmental development.

The N.W.T. municipalities, on the average in recent years, have been spending significantly larger amounts than their B.C. counterparts on recreation and cultural services. The need for formal municipal recreation services may be naturally greater in the north, in addition to the extra expense of hiring staff and running facilities and programs. In B.C. it is likely that the private recreation and culture market is better developed.

Average debt charges expenditures per capita in B.C. appear to be similar to those in the N.W.T. As in all the other categories both groups show considerable variability intermunicipally.

The average 1971 per capita education expenditures by municipalities in B.C. were almost three times greater than the four-municipality N.W.T. average. Generally, the municipalities paying out the highest levels tend to be the wealthier communities with a good industrial assessment. This boosts the amount which has to be contributed to the fixed mill provincial education fund. N.W.T. municipalities, except for Yellowknife, appear to be treated very generously in terms of education.

The major differences in responsibility between the N.W.T. municipalities and B.C. vary in magnitude according to the status of the municipality. Generally, however, the N.W.T. municipalities benefit more than B.C. municipalities from being absolved of financial and adminis-

trative responsibilities for a large portion of administration of justice, social welfare and education services (Yellowknife being the exception in terms of the latter).

PART III - CHAPTER 5C

ALBERTA-NORTHWEST TERRITORIES COMPARISONS

The Alberta municipalities selected for comparative purposes fall into two main groups:

- a) The new towns of Fort McMurray, Fox Creek and High Level;
- b) The more stable and long-established, 'old' cities of Camrose and Wetaskiwin.

A. BACKGROUND INFORMATION ON THE ALBERTA SELECTIONS

Fort McMurray is located about 250 miles north-east of Edmonton with good road, rail and air connections. It originated as a transfer point on the northern transportation system but its recent rapid growth has centred on development of the oil sands.

The village of Fort McMurray was incorporated in 1947, was proclaimed a town in 1948, and a new town in 1964, when the Great Canadian Oil Sands (G.C.O.S.) operation started. From a relatively stable population base of just under 2,000 in 1965, the town grew to almost 7,000 by 1971 and it is presently estimated to exceed 10,000.

Only a small portion of the population is native (approximately 5%) but, in common with other northern resource towns, the transient element is very strong. A relatively high natural increase has also been an important factor in the town's growth.

The major component of the town's economic base is the G.C.O.S. plant employing about 1,500 workers. Other major employers are Swanson Lumber (60 - 100 workers depending on the season), a fish

company and the transportation sector.

The financing of the town's growth has been facilitated by the new town legislation through new town advances. In the process, however, a very large debt burden has been created and which continues to increase, placing the town under severe financial stress.

The G.C.O.S. plant is a major source of revenue for the town. Since the plant is outside the town boundaries, the revenue is received as a tax transfer from the government-administered Improvement District. There has been some discussion about the possibility of forming a municipal district to encompass the town and the surrounding area where the tar sands development is located.

Fox Creek is located about 150 miles north-west of Edmonton and is relatively isolated from other communities. It developed in the late sixties and early seventies as a centre for oil and gas exploration and production, and for logging activity in the surrounding district. Prior to 1967, when it was incorporated as a new town, the community consisted of only a few shacks serving the highway traffic. From a negligible population base in 1967, the town grew steadily and rapidly to its present total of about 1,600. There is no native element in the population but transients are significant, especially in the summer. Despite its somewhat southerly location, the community is quite self-contained with no significant population outside its boundaries that may draw on the town's services.

The major employers are Chevron (120 employees) and Hudson Bay (130 employees). Lesser numbers are employed in oil and gas field

service industries and in forestry, but there is next to no government influence in the town. The main industrial plants are located outside the municipal boundaries, but the town is compensated by a tax transfer from the surrounding Improvement District.

Fox Creek has taken full advantage of the virtually unlimited borrowing capacity conveyed by the new town status (as with all the new towns the special provisions exempt Fox Creek from having to make principal payments while under the status). Fox Creek is the only one of the five current Alberta new towns which will not be granted some debt forgiveness by the government in the near future. It is considered to be in a relatively healthy financial position and is expected to lose its new town status in the near future.

High Level is located on the Mackenzie Highway and the Great Slave Lake Railroad, about 185 miles north of Peace River. It has grown from a small highway service centre to become a general service centre for the surrounding sparsely populated region.

The community was under improvement district organization until 1965. Rapid growth set in about 1963 when the population was 75: by 1966 it had risen to over 700, in 1967 it was over 1,500 and during the period 1968 - 1971 the population levelled off at about 2,000. In 1971, the population declined to about 1,600 and has held steady at that level. The construction of a hospital has, in large part, contributed to the recent stabilization, while the decline from the 2,000 plateau was caused by relocation of oil and gas service industries after the development stage was reached. There is a limited native element (about 10%) but a large transient element in the population.

The town services a nearby Indian reserve and agricultural settlement along the Fort Vermillion road.

The major component in the economic base of the town is the Swanson Lumber operation employing about 100 people directly and a similar number indirectly. Other important employers are the Alberta government forestry division, some minor oil and gas service industries, D.I.A.N.D., the hospital and the schools. The business sector helps to service the agricultural settlement and the Indian reserve to the east of the town. About seven sawmills are in operation in the immediate region. These, with the other industry, generate some tax transfers for High Level.

High Level has taken advantage of the new town status to develop its infrastructure, and in common with the other new towns, has contracted very high debt burdens. Some of this burden has been reduced by forgiveness of about \$80,000 to date, but because of its poor financial position, it is anticipated that a much larger amount will be forgiven in the near future.

Camrose and Wetaskiwin have been included in the municipal sample to allow comparisons to be made between northern provincial municipalities and those more typical of the southern, more settled part of the country.

Camrose is located about 55 miles south-east of Edmonton. It has a long municipal history having been incorporated as a town in 1906 and receiving city status in 1955. Camrose has enjoyed relatively stable population growth from about 8,300 in 1966 to 9,200 in 1974. The main

period of population growth was in the fifties with the Joarcam oil field discoveries. Camrose has continued as a regional service centre with a trading area population of between 40,000 and 60,000.

Camrose has a relatively strong and diversified economic base. It is a very important agricultural centre, receiving products and also doing some processing such as seed cleaning, dairy processing and flour milling. It has a healthy business sector and is the base for several federal and provincial government offices and institutions. The Steel Company of Canada has a pipe-manufacturing plant in the city.

Wetaskiwin is located about 40 miles south of Edmonton. It is a rather more modestly endowed community than Camrose, but it too is an important agricultural and distributing centre with a trading area population of about 30,000. Farm equipment is the main commodity marketed; agricultural processing and other manufacturing are less important than at Camrose. Wetaskiwin is a stable community, the population having grown slowly to just over 6,500 in 1973. It has had city status since 1906.

B. ALBERTA SELECTIONS/ALBERTA INTERMUNICIPAL BLOCK

Reference is made in this subsection to Tables 5C-1 and 5C-2. Before proceeding, some comments are necessary on certain aspects of the Alberta data. In 1971 Alberta still employed the old 'public works' classification instead of transportation services. The main effect of this is that street lighting expenditures remain within protective services rather than in transportation services. The actual effect is not too significant for the purposes of the present analysis.

More serious classification difficulties were experienced with regard to transfers which, under the Alberta system, are classified as contributions, grants and subsidies. It is impossible to accurately isolate grants-in-lieu of taxes by the federal government and its agencies from conditional grants made by these bodies. This difficulty is also present for provincial government agencies. Private donations or grants and various miscellaneous grants are identified in the Alberta system, but these complicate the transfers pattern because of apparent variations in the practice of accounting for these grants. Also, within the Alberta transfers group, the presence of public utilities surpluses, and grants-in-lieu payments by such municipal enterprises, appears to play havoc with provincial averages. This is especially the case for certain cities, but it also extends with lesser force into the transactions of towns. Despite these problems, the main patterns in the Alberta data can still be identified and stated with a reasonable degree of confidence.

Municipal districts, and more particularly counties, are very important elements in the Albertan municipal scene. Because of their complicating effect on certain revenue and expenditure averages, these units have been netted out. Data on villages and improvement districts have also been excluded because of their relative insignificance in the total picture. The focus on cities and towns should optimize comparability with the N.W.T. data.

Percentage Revenue: Fairly distinct patterns are present for the two groups of selections in terms of total taxation revenue. The three

new towns exhibit well below average proportions of total revenue being derived from this source. This pattern is explained by the presence of industrial tax transfers from the surrounding improvement districts, which are classed as either private/other grants or conditional transfers. The tax transfers should technically be treated as direct taxation revenue since they compensate the municipality for servicing the plants or their employees, despite the fact that the activity is located outside the municipal boundary. Wetaskiwin and Camrose are positioned at the other extreme of the percentage range of total taxation revenue. The explanation for this pattern lies mainly in the absence of water utility revenues in both these locations, owing to the presence of private operators. The sales of services revenue source is therefore reduced in importance, heightening the importance of taxation revenue.

Grants-in-lieu revenue appears to be relatively more important in High Level, Camrose and Wetaskiwin but the real difference in percentage and per capita terms is almost negligible in relation to total amounts.

The complicating influence of the tax transfers tends to mitigate against any useful discussion of the percentage importance of sales of services and other revenue from own sources in the total revenue picture. These tax transfers also complicate the overall grants and transfer pattern. These differences can be sorted out best by considering per capita revenue values.

Per Capita Revenue: The tax transfer item appears to be variously classified as a private grant or a conditional transfer. It is known

from scrutiny of the financial statements that this transfer is classified as a private grant in Fox Creek in 1971, but in Fort McMurray, Hinton, and High Level, it is included as a conditional grant.¹ The relatively high level of private grants received by Edson and Whitecourt is probably due to L.I.D. tax transfers. The high level of private grants for Hinton in 1971 is due to a large public housing grant which should perhaps have been classified as a capital grant.

Unconditional transfers maintain a very consistent level of about \$20 per capita for all municipalities. Conditional transfers, after netting out extreme variations caused by tax transfers, generally amount to less than \$7 per capita. Part of these transfers are for public welfare service assistance, leaving only a relatively small amount in the form of real benefit to the municipalities.

The three new towns appear to perform poorly in terms of taxation revenue per capita. Allowance for the tax transfers would improve their position but Fort McMurray and High Level would still fall into a below average category. Fox Creek by contrast, would gain an above average position which, all things being equal, highlights the favourable financial position of this particular new town.

Camrose comfortably manages to exceed the provincial average for the smaller municipalities because of its industrial assessment, whereas Wetaskiwin probably struggles to realize its taxation revenue.

Grants-in-lieu tend to be relatively more important in regional

¹In the compilations prepared for this study (Volume II), tax transfers have been classified as "other grants-in-lieu."

centres, but overall the amounts involved seem negligible in relation to total revenues.

The absence of water utility revenues for Camrose and Wetaskiwin is well reflected in sales of services revenue per capita. Much higher values are present for the new towns, all of which are about the same level. They are also close to the provincial averages, indicating that their new town features do not elicit special responses in this revenue area. Other revenue from own sources shows a similar pattern to be present for High Level and Fort McMurray. At Fox Creek, sales from municipal land development activity cause a significant departure from the norm. Similar potential for municipal land development enterprise exists in Fort McMurray, but the initiative has been left to private developers or senior government agencies. At High Level, more stable conditions have reduced the potential for municipal land development.

Per Capita Expenditure: Both Alberta groups exhibit similar general government expenditure levels, which are close to the provincial averages. The rapid growth and northern location characteristics of the new towns do not appear to bring marked differences from this Alberta sample. Camrose in fact, spends quite a large amount on this service area, possibly because of its affluence, while Wetaskiwin spends less, possibly due to its tighter financial position.

Of the five Alberta selections, only Fox Creek exhibits a low level of expenditure for protective services. High Level might have been expected to fall into this category also, but because it exceeded 1,500 in population, it was faced with police contract expenditures.

Fox Creek escaped these until 1972. The other Alberta selections spend almost the same per capita amounts on protective services, and their intermediate size appears to protect them from the levels of service demanded in the larger Albertan centres.

Camrose and Fox Creek made expenditures on public works that were significantly above average in the year under study. The relative wealth of both communities may explain these higher expenditures. The other, less well-off, centres display more modest expenditure levels close to the provincial average.

The well-planned feature of the new towns shows through in the figures for environmental health services. These expenditures were quite close to the provincial average even though northern towns normally face high costs in operating their utility systems, often because of piece-meal planning. Since Camrose and Wetaskiwin do not operate the water utility, their expenditures on environmental health services were artificially low in relation to the new towns.

The public health expenditures include the health unit and hospital requisitions covered by the municipalities. The variability in this service area is therefore prone to the effects of extraordinary demands in certain years. It is therefore difficult to make a useful comparative interpretation of the levels. Similar comments apply to social welfare expenditures but the provincial average (excluding Calgary and Edmonton) probably indicates the average expenditure which may be expected over a period of years.

The three large Alberta selections expend average per capita

amounts on recreation and cultural services. The smaller centres spend considerably less, particularly High Level. Other small Alberta centres incur higher expenditures in this service area. The performance of the two small new towns may be based on different priorities or on a satisfactory private recreation market.

Fox Creek and High Level make well below average levels of expenditure for education purposes. This is mainly because of their low per capita taxable assessments which reduce their level of contribution to the school foundation program. School population growth at Fort McMurray has been rapid in recent years, with large increases in absolute numbers, and this has placed a larger school supplementary requisition burden on that municipality.

Wetaskiwin and Camrose education expenditures are close to the provincial average. In view of the marked discrepancy in taxable assessment per capita, it is surprising that a greater difference in education expenditures does not exist. The relatively high level for Wetaskiwin appears to be due to a proportionately greater supplementary school requisition.

Interpretation of per capita debt charges for the new towns requires the qualification that new towns are required to pay only the interest charges on loans and advances until such times as the municipality gains a stronger financial footing. Debt charges for Fort McMurray are relatively high, not only because of the greater capital construction activity but also because a large portion of its advances were converted to debentures in the late sixties. High Level cannot afford to issue

its advances as debentures, and has therefore continued to pay only interest charges. It has also benefited from some forgiveness of its debts. Each of the three new towns have much higher per capita outstanding debt burdens than other municipalities of comparable size. Camrose and Wetaskiwin are positioned close to the average in terms of per capita expenditures on debt charges.

The very difficult financial position of High Level is reflected when compared with Wetaskiwin. Both municipalities have the same expenditure requirements but High Level has only half the per capita taxable assessment of Wetaskiwin. The tax transfer amount would only compensate High Level slightly. Fox Creek has a relatively high level of expenditure but its assessment appears to be capable of bearing the load. Camrose is in a comfortable financial position. The tighter situation at Wetaskiwin in relation to Camrose has already been noted, while Fort McMurray is in a worse position than Wetaskiwin financially, and is under rather severe financial stress.

C. ALBERTA SELECTIONS/N.W.T. BLOCK

Reference is made to Tables 5C-1, 5C-2, 5A-1, 5A-2 and the later years of the detailed summaries for each municipality (Volume II).

(See also Tables 5-1 to 5-16).

Per Capita Revenue: As in the comparisons with the other jurisdictions, grants-in-lieu payments to the N.W.T. municipalities help to improve their showing against the provincial municipalities in terms of total taxation revenue per capita. It is again, however, only Yellowknife and Pine Point which compare well with most of the Alberta selections.

Hay River and Fort Smith compare well only with High Level, the lowest performer in the Alberta selection. The inclusion of the tax transfer amount for the latter would leave only Hay River in good standing.

In terms of sales of service revenue, there is some similarity between the two groups. The Alberta new towns exhibit performances similar to those N.W.T. municipalities which entirely operate their own utility systems. The Alberta old towns compare with Inuvik and Fort Simpson which, during the study period, had little or no direct financial involvement in their utility systems.

Fox Creek, with its land development activity, is one of the few provincial municipalities which begins to approach the per capita levels of "other revenue from own sources" exhibited by Yellowknife, Hay River and Inuvik.

The N.W.T. municipalities consistently top the Alberta selections in terms of per capita unconditional transfers, although the margin is quite narrow in the case of Fort Smith. The N.W.T. municipalities also receive a higher level of conditional transfers, and in this area the gap becomes substantial in the case of Fort Smith. (In making the above comparison the tax transfers have been netted out of the pertinent Alberta data.)

The cumulative effect of non-tax revenue sources is to bring the total revenues for the N.W.T. municipalities much closer into line with most of the Albertan selections. Only Inuvik and Fort Simpson fall well short of the Alberta group in terms of total revenue.

Per Capita Expenditures: General government expenditures by most N.W.T.

municipalities are significantly greater than for most of the Alberta selections. This discrepancy may be influenced by additional northern costs or through the influence of a generous level of unconditional grant support in the N.W.T.

All the N.W.T. municipalities except Yellowknife, exhibit a relatively low level of protective services expenditures. This situation is most comparable with Fox Creek, the only Alberta selection which is also faced with little or no police contract expenditures during the study period. By contrast, Yellowknife makes expenditures comparable to the other Alberta selections in this service area. Yellowknife makes expenditures only for fire and bylaw enforcement, however, and does not pay for R.C.M.P. services.

Only relatively affluent Camrose and Fox Creek reach the range of public works/transportation services expenditures present for most of the N.W.T. municipalities. The other Alberta selections fall well short of the N.W.T. levels. Reclassification of Alberta street lighting expenditures from protective services to public works may reduce the discrepancy between the groups somewhat but the effect would probably not be significant. The higher N.W.T. levels may be in part due to higher northern costs, or possibly the incentive effect of generous road maintenance assistance levels.

As always, Yellowknife and Pine Point incur much higher levels of environmental health expenditures than all the provincial municipalities, mainly because of the water and sewer utility system. Fort Smith also faces high expenditures in this area by comparison with the Alberta selections. Hay River is on a par with Fort McMurray, the

highest of the Alberta selections. Little difference exists between the two old towns in Alberta and Fort Simpson and Inuvik, none of which operated the main water and sewer utility. Camrose and Wetaskiwin have sewer system expenditures in addition to garbage collection.

During the period under study, the Alberta selections tended to face a higher expenditure burden than the N.W.T. municipalities in the area of health and welfare services. However, the difference in absolute amounts is not very significant in relation to total expenditures.

The old Alberta classification system does not allow for identification of environmental development services. This service area is important for several N.W.T. municipalities and should be borne in mind when evaluating differences in total expenditures.

The large Alberta selections compare favourably with Yellowknife and Fort Smith in terms of the level of recreation expenditures. Hay River and Pine Point have no equals in this category, while Fox Creek and High Level compare with Fort Simpson and Inuvik in the N.W.T. (Little significance can be attached to the latter statements owing to rapid increases in the most recent years, especially in the case of Fox Creek and Inuvik.)

Yellowknife has very high per capita levels of education expenditures by comparison with all the Alberta selections. Of the remaining N.W.T. municipalities, only Pine Point approaches the level of the lowest rating Alberta selection, High Level.

Yellowknife has been spared the high level of debt charges of Fort McMurray, another high growth community in Yellowknife's population

range, due to the amount of capital assistance received from senior governments. This feature tends to push down all the N.W.T. municipalities' level in this area. By contrast, the mechanism of new town advances leads to an understatement of the debt charge burden of the Alberta new towns.

Yellowknife incurs the greatest level of total expenditures of the N.W.T. municipalities and the Alberta selections. Although environmental development is a significant component, the main sources of the expenditure demand are education and environmental health.

D. N.W.T. BLOCK/ALBERTA INTERMUNICIPAL BLOCK

Reference is made primarily to the averages presented at the bottom of the main tables (Tables 5A-1, 5A-2, 5C-1, 5C-2). It should be noted that the Alberta averages refer to cities and towns only and do not refer to the average for all municipal classifications.

Per Capita Revenue: Average per capita taxation revenue for the N.W.T. municipalities is only about half the averages for Alberta. Grants-in-lieu payments, if an average was available, would only raise the Alberta level minimally. By contrast, such payments contribute to a marked improvement in total taxation revenue for the N.W.T. municipalities, cutting the discrepancy by about half. The N.W.T. municipalities fall a little further behind Alberta when sales of services revenue is considered but the ground is more than made up by "other revenue from own sources."

The Alberta averages for total transfers require some qualifica-

tion. These averages are distorted in large part by the inclusion of public utilities surpluses and grants-in-lieu contributions from these municipal enterprises, along with other industrial grants-in-lieu. A better appreciation of the average level of total transfers to Alberta municipalities may be gained by directing attention to the sample. Netting out the extreme cases mentioned earlier, it may be noted that a more apt average for the Alberta municipalities would be about \$25 per capita (total transfers). This level is under half that present for the N.W.T. municipalities.

The distorting influence of the public utilities transactions also affects total revenues. If this influence is netted out, the effect would be to bring average total revenue for both jurisdictions into line with one another. Before much can be made of this situation of parity, the expenditure responsibilities of the municipalities in either jurisdiction should be considered.

Per Capita Expenditures: A significantly larger portion of the average N.W.T. total is committed to general government services. Depending on the provincial average consulted, the N.W.T. municipalities fare similarly, or are effectively much better off, than their provincial counterparts on average in the area of protective services. At the top of the population and status hierarchy, Yellowknife is seen to have much less financial responsibilities than its counterparts in Alberta as regards protective services. The other N.W.T. municipalities are more on a par with the provincial average (excluding Calgary and Edmonton) and are no worse or better off than their counterparts.

The N.W.T. municipalities have to spend slightly higher levels of expenditure on average on public works/transportation services than the Alberta urban municipalities. The absolute difference is not great. A similar pattern is present for recreation and cultural services, and also for environmental health services. (It should be recalled that only jurisdictional averages are being considered.)

This difference is compensated in part by lesser financial responsibilities for the N.W.T. municipalities in the areas of health and social welfare services. The N.W.T. municipalities further benefit from much lower levels of average debt charge expenditures.

The major discrepancy between the two jurisdictions lies in the area of education expenditures where the benefit accrues to the N.W.T. Crude calculations indicate that, on average, the compensations, in the form of reduced financial responsibilities, more than balance out the extra commitments that must be made due to greater northern costs or special operating difficulties.

PART III - CHAPTER 5D

SASKATCHEWAN-NORTHWEST TERRITORIES COMPARISONS

The Saskatchewan municipalities selected for detailed comparison with the N.W.T. municipalities are the town of Hudson Bay and the village of La Ronge.

A. BACKGROUND INFORMATION ON THE SASKATCHEWAN SELECTIONS

The incorporated village of La Ronge is located at the southern edge of the Canadian Shield, about 250 miles north of Saskatoon. It has road and air connections with Prince Albert. It is one of four administrative units in the immediate area, the other three being the unincorporated community of Air Ronge (population 200), and two Indian Reserves (population approximately 850) administered by the Department of Northern Saskatchewan. The village of La Ronge itself has a population of about 1,100 at present composed of approximately 55% Indian and Metis and 45% others. The transient element in the population is quite significant, and has been accentuated in recent years by the closure of Anglo Rouyn Mines and, filling the void, the establishment of the headquarters of the Department of Northern Saskatchewan in the village.

The community's economic base is relatively diversified by comparison with most other native-dominated communities. It ranges from the traditional industries of trapping and fishing to tourism, with administration and local and regional service functions such as schools and a hospital. Marked disparities in income, related to the wide range of employment, result in a diversity of living standards and socio-spatial stratification of the population. In this important

respect the village bears close similarities with the N.W.T. municipalities, particularly Inuvik and Fort Simpson.

Further similarities are found in the terrain problems (mainly bedrock and muskeg tracts) which affect the provision of certain basic services. Because of such problems, La Ronge has been favoured by a number of ad hoc decisions made by the senior governments in the form of relatively high levels of capital assistance, similar to the practices in the N.W.T. The most recent example of this is the extension and upgrading of the water and sewer system. However, the burden on the municipality will still be heavy by comparison with the treatment accorded to communities such as Fort Simpson and Inuvik.

Co-operation between the village and the other administrative units in the district appears to be good. One Indian band contributes \$1,000 per annum for village fire protective services, and the government pays for the cost of policing on the reserves. There has been some discussion recently about consolidating the administration of the district into one unit.

Because of the presence of the mine in the past, the village received 'industrial town' status but no real benefits were derived from this designation. The village will lose the status due to the closure of the mine. The arrival of government in greater force may not necessarily make for large grants-in-lieu payments because of the province's relatively restrictive policies in this sphere. It is unlikely, for instance, to replace all the tax revenue which was derived from the mine (about \$20,000 per annum).

The town of Hudson Bay, incorporated in 1946, is located in north-eastern Saskatchewan approximately 170 miles east of Prince Albert and 30 miles west of the Manitoba boundary. The town grew up initially in association with the C.N.R. line to Churchill. Recent growth of the community is based on developments in the forest products industry in the region. The town also services a limited mixed farming district surrounding the community, and provides for the needs of sports hunters.

Major employers in the municipality and district are two forest products firms which employ about 450 in plant operation and another 600 in logging operations. The C.N.R. accounts for about 90 employees, the Department of Northern Saskatchewan for 15, and about 50 teachers are employed in the three schools. Government-owned Saskatchewan Forest Products is currently constructing a plywood plant just outside the town, and when completed it is expected to employ 150. With this development, the town's population is expected to grow at a faster rate from its present level of just over 2,000. This growth was expected in the late sixties but has not materialized until now. There is a negligible native element in the population, but, on account of the logging employment, transiency is an important factor.

The recent developments have prompted the municipality to seek senior government assistance for certain aspects of the town's operation. It is presently taking advantage of the Federal-Provincial Agricultural Service Centres Program to expand and upgrade the water supply system (50% grant from D.R.E.E., 50% loan from province). Loans from C.M.H.C. (with about a one-sixth cost forgiveness feature) along

with some D.R.E.E. funds, are being used to assist with similar improvements of the sewage system. These projects began in 1973. Late that year Hudson Bay sought and received industrial town status from the province. This permits the town to receive extra-ordinary loan and grant assistance from the government, to enable it, in part, to pay its employees salaries and wages which are competitive with those paid by industries in the town or district.

Of the three forest product establishments, only one lies within the municipal boundaries. The remainder are located in the surrounding Local Improvement District (L.I.D.). Some conflicts, as well as mutual agreements, exist between the town and the L.I.D. Co-operation is present in the area of fire protection, ambulance service and nuisance grounds operations. The town would prefer to have some compensation for the 'free' use, by L.I.D. inhabitants, of certain recreation and police services. Annexation by the town of the area containing the forest industries is a major discussion point in the district at the moment. The industrial assessment would mean about \$20,000 more in taxes for the town. These industries are presently considered to be fairly good corporate citizens and assist the municipal units in several small ways.

Hudson Bay, during the period under study, experienced only limited population growth and a relatively stable economy. It may provide the basis for some useful comparisons with Fort Smith in the N.W.T.

B. LA RONGE, HUDSON BAY/SASKATCHEWAN INTERMUNICIPAL BLOCK

Reference is made in this subsection primarily to Tables 5D-1 and 5D-2. See also Volume II and Tables 5-1 to 5-16 in this volume for further details.

Percentage Revenues: Taxation and education levies account for the great majority of all revenues received by Saskatchewan municipalities. La Ronge and Hudson Bay derive relatively similar, yet slightly below average, portions of revenue from taxation for general purposes. Hudson Bay, having a higher assessment, has to collect a greater amount to cover its education financing responsibilities. As in most Saskatchewan municipalities, grants-in-lieu are of almost negligible significance in the total revenue picture. Both municipalities rank significantly above average in the proportion of revenues derived from sales of services, due to fairly high water and sewer charges. Saskatchewan municipalities do not receive unconditional transfers from the provincial government. The percentage figure present for La Ronge apparently relates to a large amount of extraordinary private donations. (In the present study this revenue has been classified as "other revenue from own sources.")

Conditional grants in Saskatchewan tend to be earned in varying amounts from year to year. A large proportion of these transfers go to rural municipalities for road maintenance. The absence of any such units in the present sample therefore distorts the average picture for urban municipalities. Some distortion is also caused by the special financing arrangements that health units, based in Moose Jaw and Prince Albert, have with the provincial government. It may be noted that the

very high conditional transfers received by these two cities is counteracted in large part by very high expenditures for public health and welfare services.

Considering only the picture for the urban municipalities, it may be appreciated that the level of conditional transfers is very low, and accounts for a negligible proportion of total revenues of almost every municipality.

Per Capita Revenues: In the remaining comparisons the provincial averages referred to are those relating to the urban municipalities only. (A set of averages is included which covers both urban and rural municipalities.)

Hudson Bay and particularly La Ronge are relatively poor Saskatchewan municipalities as may be appreciated from their per capita taxable assessments. According to the sample considered here, Hudson Bay ranks close to, but below average, with La Ronge more definitely below average in terms of taxation revenue per capita. The per capita education levy follows a similar pattern. Per capita grants-in-lieu payments are greater for La Ronge but the absolute amount involved is negligible.

La Ronge and Hudson Bay rank about average for urban municipalities in terms of sales of services revenue. For the sample used here, the per capita amounts of conditional transfers received by most urban municipalities are of small importance.

Per Capita Expenditures: La Ronge and Hudson Bay do not differ greatly

from other Saskatchewan municipalities in terms of per capita expenditures on general government services, spending only slightly above average amounts. Their bills for protective services, however, tend to be significantly higher than most other municipalities of comparable population. Both are indirectly subsidizing police and fire services to populations outside of their boundaries, because compensating arrangements are not adequate.

Both Saskatchewan selections rank close to the Saskatchewan average for transportation services. The larger occasional deviations from this average may be associated with periodic incentives earned under grant schemes administered by the Municipal Road Assistance Authority.

Hudson Bay incurs about average per capita expenditures for environmental health services, while La Ronge has one of the highest levels of per capita expenditures in the province for this category. This is in common with the other northern provincial municipalities which have grown in a piecemeal and relatively unplanned fashion. Hudson Bay experiences less environmental and topographical problems in operating its system, much of which was planned and installed in the early sixties.

Apart from Moose Jaw and Prince Albert, Saskatchewan municipalities are required to spend relatively low amounts on public health and welfare services. Actually, depending on the classification of the health and hospital tax requisition, expenditure levels may be a little higher than is indicated in Table 5D-2. The detailed summaries for La Ronge and Hudson Bay give a picture which is probably repeated in other small urban municipalities.

Environmental development expenditures are nil or negligible for Saskatchewan municipalities.

Recreation and cultural services expenditures vary greatly by municipality. Hudson Bay exceeds both provincial averages for urban municipalities for this category, whereas La Ronge is in the opposite position.

La Ronge is required to spend well below average amounts on education mainly because of its low taxable assessment. Hudson Bay is less fortunate, having to spend relatively large amounts for this service despite its low taxable assessment. This municipality may be subsidizing some of the education costs of the surrounding L.I.D., such as in the area of school buses. Overall, La Ronge is below both the provincial averages for urban municipalities and Hudson Bay is between these.

La Ronge ranks below average for per capita debt charges, possibly reflecting the benefit of previous ad hoc decisions on capital assistance. Hudson Bay also has low debt charges because of its low borrowing capacity and stable growth in the past.

Overall, it may be noted that both municipalities tend to have high total expenditure requirements in relation to their low taxable assessments. Senior government assistance at the present time is therefore timely, particularly for La Ronge.

C. LA RONGE, HUDSON BAY/N.W.T. BLOCK

Reference is made to Tables 5D-1, 5D-2, 5A-1, 5A-2. See also Volume II and Tables 5-1 to 5-16 in this volume.

Per Capita Revenue: Of the N.W.T. municipalities, only Yellowknife and Pine Point have exceeded the per capita total taxation revenue (including grants-in-lieu) received by Hudson Bay and La Ronge, while Hay River and, to a lesser extent, Fort Smith, have closely approached the level for La Ronge. Inuvik and Fort Simpson, previously indicated as having some similarities to La Ronge, fall well below its per capita total taxation level. The mine tax revenue was still important to La Ronge at this time. As always, grants-in-lieu tend to be more important in the N.W.T. municipalities. Yellowknife, Hay River and Fort Smith exhibit relatively similar levels of per capita sales of service revenue by comparison with the two Saskatchewan selections. The smaller N.W.T. municipalities would probably have fallen within the same range if the utility operations were not run in whole or in part by non-municipal bodies.

Proceeds from land development again distort revenues from "other revenue from own sources" in Yellowknife, Inuvik and Hay River. However, Fort Smith compares quite closely with Hudson Bay, while Fort Simpson and Pine Point are exceeded slightly by La Ronge.

The major contrast between the two groups is in the area of government transfers, particularly unconditional transfers. In total, the large transfers, in most cases, tend to make up for any relative deficiency of the N.W.T. municipalities in terms of total taxation revenue. Fort Smith and Hay River thus exceed Hudson Bay in terms of total revenues and Inuvik in the most recent years out-does La Ronge.

Per Capita Expenditures: All of the N.W.T. municipalities exhibit

significantly higher per capita levels of expenditure on general government services. This may be fostered by the large unconditional grant allocated to the general administration department of the N.W.T. municipalities.

Apart from Yellowknife, the N.W.T. municipalities have significantly lower levels of protective services expenditures than La Ronge or Hudson Bay. The prime cause of the large difference is the absence of police financing responsibilities in the N.W.T. If Yellowknife had those responsibilities, it would probably rank among the larger Saskatchewan cities.

The N.W.T. municipalities tend to spend more on transportation services than either La Ronge or Hudson Bay. Additional northern costs can be only a partial explanation of the difference since the Saskatchewan selections are also northern in nature. It is possible that assistance with road and sidewalk maintenance in the N.W.T. is more generous in amount and scope than in Saskatchewan urban municipalities and therefore provides an incentive for greater expenditures in this area.

Hudson Bay escapes the high levels of environmental health expenditures found in the N.W.T. municipalities which operate their utility systems in whole or part. La Ronge falls more clearly within the N.W.T. range, reflecting similar problems in providing the service.

On balance, there is little difference in the financing of health and welfare services between the Saskatchewan selections and the N.W.T. municipalities. In both groups the expenditures are virtually negligible. As with the other provincial municipalities, environmental

development activities are larger and more frequent in most of the N.W.T. municipalities than in the Saskatchewan selections.

Expenditures on recreation and cultural services are at much higher levels in the N.W.T. municipalities with the exceptions of Inuvik and Fort Simpson. Senior government assistance may well be an incentive to higher expenditures by the N.W.T. municipalities.

The contrast between provincial municipalities and the N.W.T. municipalities (excepting Yellowknife) in terms of education expenditures continues in Saskatchewan. Despite the socio-economic similarities with Inuvik and Fort Simpson, La Ronge is required to make much higher levels of expenditure on education. Hudson Bay, despite broad similarities with Fort Smith, has much higher expenditures. Yellowknife incurs about the same level of education expenditures as other Saskatchewan cities in the same population range.

Regarding debt charges, the most striking contrast lies in the absence of such charges by Fort Simpson and Inuvik and the presence of a high level of debt charges in La Ronge. Hudson Bay, except for 1972, has always been required to make much greater expenditures to cover debt charges than has been the case for Fort Smith, despite similar growth patterns of the two municipalities in the past decade or so.

It is difficult to avoid the suspicion that the municipal development of both La Ronge and Hudson Bay could have been better had they been within the N.W.T.

D. N.W.T. BLOCK/SASKATCHEWAN INTERMUNICIPAL BLOCK

Reference is made primarily to the averages presented at the

bottom of Tables 5A-1, 5A-2, 5D-1, and 5D-2.

Per Capita Revenue: In terms of total taxation revenue (including grants-in-lieu) the N.W.T. group falls considerably short of the Saskatchewan averages by about \$60 in 1971. This large discrepancy is virtually eliminated when the other revenue sources are considered. Relatively small gains are made in terms of sales of services revenue. Larger gains accrue from other revenue from own sources. The largest gains are realized through conditional and unconditional transfers from senior governments. As a result, urban municipalities in both jurisdictions have about the same total revenues. This statement means little, however, without information on the relative burden of responsibilities faced by the urban municipalities.

Per Capita Expenditures: Per capita expenditures on general government are significantly higher in the N.W.T. Although additional northern costs may be a factor, it has been suggested that strong unconditional grant assistance in the N.W.T. may also play an important part in explaining the difference.

Saskatchewan urban municipalities tend to be faced with much greater financial responsibilities in the area of protective services, mainly due to police financing arrangements. This issue is currently a very contentious one with Saskatchewan urban municipalities because of the burgeoning costs of R.C.M.P. contracts.

The N.W.T. municipalities have, on the average, slightly greater levels of expenditure on transportation services. The explanation for

this may be similar to that given for general government services above.

Environmental health services, dominated as they are by water and sewer services, represent one relatively clear area of higher costs in the N.W.T. Senior government assistance tends to offset, rather than encourage higher expenditures. The large difference suggests even more assistance may be required, at least in certain N.W.T. municipalities.

Environmental development claims a much greater portion of total expenditures in the N.W.T. than in any other province. As land development settles down this large discrepancy will tend to disappear.

The comments made in respect to average differences in general government and transportation services also apply in the sphere of recreation and cultural services, where the N.W.T. municipalities again tend to spend greater amounts.

On the average, little difference exists between the N.W.T. and Saskatchewan in debt charges. This may appear surprising in view of the rapid development of the N.W.T. in the past decade or so and the concomitant municipal capital works activity. It is suggested that relatively generous capital assistance to the municipalities in the N.W.T. accounts for the similarities.

A major responsibility difference between the two jurisdictions is in the area of education. The difference entails a much greater dollar burden for the Saskatchewan municipalities. This responsibility burden, and the one stemming from policing, appears to compensate in large part, if not totally, for additional northern costs of operation and low tax revenue bases in the N.W.T. municipalities.

PART III - CHAPTER 5E

MANITOBA-NORTHWEST TERRITORIES COMPARISONS

The Manitoba municipalities selected for detailed comparative study with those in the N.W.T. are Thompson and The Pas and, in somewhat lesser detail, Churchill.

A. BACKGROUND INFORMATION ON THE MANITOBA SELECTIONS

The Pas was incorporated as a town in 1912. Throughout its relatively long history it has served as a service centre for most, if not at times all, of Northern Manitoba. At the present time the relative importance of transportation and communications in the town's economic base has declined owing to the presence of an integrated forest products complex dating from 1968-69. The complex accounted for about 50% of employment in the town in April 1973. The other major employment sector, apart from transportation and communications (approximately 15%), is the institutional sector accounting for approximately 25% of employment.

Prior to the arrival of the forest products complex, The Pas and its hinterland was economically a very depressed area with rapid population growth out-stripping the rate of employment expansion. The town of The Pas had a population of 5,000 in 1966, rising to almost 7,000 in 1971, and in early 1974 was estimated by municipal officials to be nearing 9,000. The large majority of the population is white but the hinterland population of about 7,000 contains a large native element.

The impact of the forest complex caused major difficulties for The

Pas as it was expected to provide extensive additional services within a short period of time. These difficulties were recognized by the senior governments, and in 1970, The Pas and its hinterland was designated as a 'special area' under the development program operated by the Federal Department of Regional Economic Expansion. The town of The Pas has been the major beneficiary of the program which, including recent revisions, has poured almost \$12 millions in federal grants and loans into the region. Much of the town's service infrastructure has been upgraded, reconstructed or expanded, especially the water and sewer system and the town's street network. It is generally acknowledged that without the D.R.E.E. program the town would have been in very serious trouble.

Thompson, in contrast to The Pas, has never been troubled by a depressed economic situation. Thompson originated in 1956 as the townsite to the fully-integrated nickel mining complex operated by the International Nickel Company (Inco.). The community experienced very rapid population growth which has only recently levelled off at about 20,000. Approximately 5 - 10% of the population is native.

The mining company has played a major role in the development of many municipal services in addition to facilitating residential land development. Once developed, the service facilities and the land were deeded by the company to the municipal unit, generally at modest values. Until 1967, when Thompson became a town, the townsite was a part of Mystery Lake Local Government District. Thompson became a city in 1970.

Inco does not pay taxes but contributes to the city's operation by one of two options. It must either make a payment of a grant-in-lieu

of taxes amounting to 55% of the operating costs of Thompson (and the surrounding Local Government District) or make a per capita payment based on the number of men employed by Inco. The latter option has never been used by the company, presumably because it still sees itself to be the majority employer.

Certain costs are not applicable under the 55% cost sharing agreement. These items relate mainly to utility operations and capital expenditures. As an example, the 1972 contributions made by Inco under the agreement are set out in Table 5E-3.

Presently out of a total labour force of about 6,000 the company employs 3,800, the commercial sector employs about 400, schools and hospitals 200, construction 400 and the municipal government about 120. Provincial and federal government departments or agencies located in the city now employ between 600 and 700 persons and there are indications that this sector will expand significantly as Thompson becomes fully established as the service centre for Northern Manitoba.

Inco is an excellent corporate citizen according to municipal officials, contributing in particular towards recreation facilities. This policy has, in part, led to a lower turnover in employees and a diminishing of the importance of the transient element in the city's population.

The Local Government District of Churchill is probably one of the few municipal units located in a province with relatively similar characteristics to the N.W.T. municipalities, particularly Inuvik and Fort Simpson. Its economic base is strongly dominated by the trans-

TABLE 5E-3

City of Thompson - Computation of
Contributions under Agreement with Inco,
Year ended December, 1972

Total Expenditures for services for the Year \$4,754,369

Items not applicable under agreement:

Garbage Removal costs	98,871
Capital Appropriations	448,954
Utility Operation	194,606
Recreation Complex Capital	28,247
School Capital Expense not allowed	110,668
School Foundation Program	404,707
Swimming Pool Reserve Appropriations	32,290
General Reserve Appropriations	106,559
Beautification and Land Rehabilitation	27,878
Deferred Levy Street light Construction	6,182
L.I.P. grants received or included as expenses	72,493
TOTAL	<u>1,531,455</u>
Expenditure applicable under agreement	3,222,914
Contributions payable under formula (55% of applicable expenditure)	<u>1,772,603</u>

Source: City of Thompson, Financial Statement 1972, p 18 - Schedule 12

portation sector, the servicing of the international grain export trade, and the coastal trade in the Central Arctic. Grants-in-lieu payments from federal agencies, the Port Authority and the C.N.R., are the mainstays of the district's finances.

The Churchill area is made up of six individual settlements which exhibit wide variations in housing conditions, levels of servicing and social structure. The situation is thus somewhat akin to the old towns, new towns, native 'ends' etc. found in the N.W.T. municipalities. The Churchill townsite services the transportation sector. Fort Churchill is a former military base five miles from the townsite. It now services some federal government employees responsible mainly for the substantial Indian and Eskimo element in the local population. The native population is concentrated mainly in the remaining settlements - The Flats and Jockville (squatter communities), Akudlik (Eskimo village) and Dene Village (Chipweyan Treaty Indians). The total population in 1971 is estimated in one study to have been almost 3,500, but the 1971 census figures for the L.C.D. place the population at just over 1,600. It is possible that the district population represents only the townsite and the two squatter communities.

In 1972 Churchill came under a \$10 million Federal-Provincial Cost Sharing Agreement aimed at revitalizing Churchill and consolidating the area's population in a redeveloped townsite. The major items included in the plan are public housing, sewer and water, street paving and drainage, administration, public works, a library, recreation buildings, a secondary school and a hospital-medical complex. It is anticipated that these developments will have a significant impact on the quality

of life for Churchill residents.

B. THE PAS, THOMPSON, CHURCHILL/MANITOBA INTERMUNICIPAL BLOCK

Reference is made primarily to Tables 5E-1 and 5E-2. For further details see Volume II and Tables 5-1 to 5-16 in this volume.

Percentage Revenues: Both Thompson and The Pas perform similarly in terms of the proportion of revenue raised by taxation to cover general and school purposes. General taxation in both cases is comparable with the provincial average (excluding Winnipeg and Suburbs). (This average is the one referred to in the remainder of this section.) The education levy falls below average in each case. This is related to the relatively large contribution of grants-in-lieu to total revenue. Both municipalities rank well above average in terms of the importance of grants-in-lieu payments. The major industries contribute in both cases, with the payment by Inco at Thompson being especially large, and government departments and agencies also figure prominently in the total assessment of both. The exceptionally high grants-in-lieu level for Churchill distorts the proportions derived from school and general taxation. Once these categories and grants-in-lieu are combined, the differences from the provincial average almost disappear for Churchill and The Pas, but at Thompson total taxation revenue accounts for an exceptionally high proportion of total revenues.

There is little difference in the importance of unconditional transfers to either municipal unit. It is probable that both Thompson and The Pas suffered some loss in 1971 because the calculation of the per capita unconditional grant was based on 1966 population. Both

municipalities grew rapidly in the period but the growth is not recognized by the computation system until 1972 when census figures are available and adjustments would be made for underpayment in the previous period. Churchill experienced declining population over the period and seems to have benefited from the computation procedure. These percentage differences became more marked when translated into per capita terms.

Conditional government grants in Manitoba tend to be earned in widely varying amounts over a period of years. In 1971, Churchill happened to do well while Thompson and The Pas ranked below average.

Sales of services revenue in Thompson is well below the provincial average, reflecting the absence of water and sewer charges. Utility operating costs are covered from general taxation, explaining in part the relatively high proportion of total taxation revenue. The Pas and Churchill place above average in this category. High user rates to cover the relatively high operating cost of old utility systems are the main cause.

Per Capita Revenues: The most striking feature in the per capita revenue pattern is the extremely high grants-in-lieu received by Churchill. This underlines the importance of the federal agencies to Churchill. Both The Pas and Thompson rank well above average in this category. It may be noted that Flin Flon and Lynn Lake, both mining municipalities deriving revenue from special arrangements with the mining companies, also rank high in comparison to the provincial average.

Total taxation revenue per capita for Thompson and Churchill is above both the provincial averages, but The Pas only exceeds the average when Winnipeg and its suburbs are excluded. Churchill emerges as the highest per capita taxation revenue producing municipality of the entire sample considered here because of its high non-residential assessment and declining population features. In this regard, Churchill differs markedly from most N.W.T. municipalities, with the possible exception of Pine Point.

The discrepancy between the three municipalities in terms of sales of services revenue has already been discussed.

Unconditional transfers per capita in The Pas and Thompson rank below the provincial average because of their rapid population growth, and because the 1966 population was used for the grant calculations. The reverse applies to Churchill where the 1966 population was over 3,500. Churchill's per capita grant declined in 1972 when the 1971 census populations were available. Although adjustments are made in Manitoba to reimburse rapid growth municipalities for underpayment, municipalities experiencing declining population are not required to reimburse the province for over-payments. Per capita conditional transfers vary a great deal but over a period of several years most municipalities would average approximately \$8.00 per annum.

The high per capita level of "other revenue from own sources" for The Pas is due to an extraordinarily high sale of goods in the year studied. In most years it would come much closer to the provincial average.

Per Capita Expenditures: Turning to per capita expenditures on general government services it should be noted that the level for The Pas is artificially low due to an accounting procedure by which recoveries are made from other departments. This practice may affect other Manitoba municipalities since this province's data reporting system includes spaces for such transactions. However, these spaces are not always used as is revealed by the financial statements of Thompson and Churchill. Thompson's general government expenditures rank well below the average, giving further support to the hypothesis that municipalities dominated by mining companies benefit from a much simpler administrative environment.

The revised general government expenditures for The Pas (Table 6B - 11) is well above the provincial average but not quite so high as for Churchill. Additional northern costs and recent diseconomies of scale may explain the Churchill figure. The Pas also must contend with higher northern costs, rapid growth and heightened activity in relationships with other governments.

Churchill appears to receive special treatment in connection with financial responsibility for police services. Normally, in Manitoba only municipalities with populations under 500 receive free policing. Both The Pas and Thompson incur well above average per capita expenditures on police services. In The Pas it is possible that need is the important factor, while in Thompson the demand associated with high incomes and a large population may be more important.

Little difference exists between the three municipalities in terms of per capita expenditures on fire protection service. All rank above

the provincial average suggesting the significance of size of population and/or additional northern costs. The total protective services expenditures in Thompson and The Pas are above the provincial average which includes Winnipeg and its suburbs. It is sometimes remarked that Thompson is not unlike a suburb of Winnipeg and the above figure may underline this affinity.

Each of the three municipalities rank below average in terms of per capita expenditures on transportation services. The difference is most marked for Thompson, which benefits from a high quality road system requiring less maintenance, and least marked for Churchill. The position of Churchill may be the result of a trade-off between higher northern costs and lower priorities for this type of service in the north.

As with most well-planned communities, Thompson exhibits relatively low per capita expenditures on environmental health services. Thompson is aided in attaining this position by having responsibility for the distribution system only, and even this function is made less expensive by utilizing gravity over much of the system rather than pumping. Economics of scale may also be of assistance. Very few such advantages are present for Churchill and The Pas. In both communities, environmental health expenditures are dominated by an old utility system which tends to be expensive to operate.

Site factors rather than location factors can strongly influence expenditures in this category. Minnedosa for instance, is confronted with relatively hilly terrain by Manitoba standards and incurs heavy

pumping costs. The other northern municipalities sampled, Flin Flon and Lynn Lake, also rank above the average and in these cases it is suggested that the northern location (unsubsidized by company arrangements) is the main explanatory factor.

Churchill appears to suffer relatively high social welfare expenditures by comparison with most other small municipalities in Manitoba. The Pas is at the provincial average. The excellent employment situation at Thompson obviates, in large part many welfare problems. A similar pattern exists for Lynn Lake. The high level for Flin Flon, almost on a par with Churchill, is surprising, but it may also be explained by transient population features. Health and social welfare expenditures are relatively small for all Manitoba municipalities.

While per capita recreation expenditures in Thompson and The Pas rank well above the average, Churchill is at the other extreme. Large segments of Churchill's population receive very low levels of recreation service and this is an important area of focus in the current redevelopment thrust. By contrast, Thompson is very well served, not only by the municipality, but also by private clubs, with considerable assistance from Inco.

The dominating influence of Inco in the early provision of basic infrastructure explains most of the absence of debt charges in Thompson in 1971. Churchill has also received considerable assistance from senior governments in a manner similar to that of municipalities in the N.W.T., especially Inuvik and Fort Simpson. The Pas is only now receiving such assistance through D.R.E.E., but it is faced with

retirement payments on its loans. With the likely expansion of industry and assessment following implementation of the program, the higher debt burden should prove more tolerable.

The significant grants-in-lieu payments made to Thompson and Churchill are an influence in the per capita expenditures on education. Portions of this revenue are directed to cover the education levy and give these municipalities an ability to contribute more into the provincial foundation program. The Pas is not so well placed in this respect since grants-in-lieu payments are not quite as important there.

Because of the grants-in-lieu element, it is difficult to place a precise interpretation on the relationship between per capita total expenditures and taxable assessed value per capita. It is clear, however, that Thompson would emerge in a relatively prosperous position by comparison with most other Manitoba municipalities. It is faced with relatively low expenditures and a high potential assessment base.

Allowance for grants-in-lieu would add much less to The Pas' taxable assessment, yet it is faced with much higher expenditure requirements. For Churchill, assessment on which grants-in-lieu are payable would probably about double the per capita taxable assessed value. This total would still be below both provincial averages while expenditure requirements significantly exceed the averages.

C. THE PAS, THOMPSON, CHURCHILL/N.W.T. BLOCK

Reference is made in this sub-section to Tables 5A-1 and 5A-2 on the N.W.T., in addition to Tables 5E-1 and 5E-2 on Manitoba and the detailed analyses of the financial statements of the municipalities.

Per Capita Revenues: Of the N.W.T. municipalities, only Yellowknife and Pine Point compare favourably with the Manitoba municipalities in terms of total taxation revenue. Yellowknife is in this position mainly because of its performance in the area of general and school taxation, while at Pine Point the Cominco payment is of additional significance. The level of grants-in-lieu revenue in The Pas is comparable with that found in most of the N.W.T. municipalities, but Churchill, with its extremely high level, appears to have no equals in this category.

The larger N.W.T. municipalities pick up some of the ground lost in total taxation revenue by relatively high levels of performance in the areas of sales of services and other revenues from own sources. These differences are most marked when compared with Thompson, whereas The Pas exhibits a pattern more similar to the N.W.T. municipalities.

Proceeds from land development are a significant influence in boosting the N.W.T. municipalities' performance in the "other revenue from own sources" category. As at The Pas and Churchill, however, the high sales of services reflect mainly high user rates for utility services.

All the N.W.T. municipalities make further gains on the Manitoba selections in terms of both conditional and unconditional transfers. The large increases in unconditional transfers received by The Pas and Thompson between 1971 and 1972 is due in large part to an adjustment payment for undercalculation of the per capita grant in the 1966-71 period. The 1972 level will not be maintained in later years.

The outcome of the relatively good performance of the N.W.T. municipalities, in terms of revenue sources other than total taxation,

is to place more of them in a favourable comparative position with the Manitoba municipalities in terms of total revenue per capita.

It may be noted that the highest levels in both groups for Yellowknife and Churchill, are caused in large part by revenues which have to be turned over to other local government bodies for school purposes. This comment points up the need to evaluate what the revenues cover before attempting an assessment of the relative performance achieved, assistance received or burden experienced by the individual municipalities.

Per Capita Expenditures: It has already been pointed out that actual per capita general government expenditures for The Pas are well over double the provincial average. This brings it, along with Churchill, into line with the levels of per capita general government expenditures found for most of the N.W.T. municipalities. The relatively low level for Thompson is comparable in rank with that found for Pine Point - a fellow mining municipality.

Only Yellowknife exhibits patterns similar to Thompson and The Pas in terms of total expenditures on protective services. The other N.W.T. municipalities are in a class similar to that for Churchill. This bears out the higher demands for police and fire services in relatively large and sophisticated municipalities. The bulk of the protective services expenditure in the N.W.T. municipalities tends to be for fire services, as is also the case for Churchill. The Pas and Thompson have heavy financial responsibilities for police services. Yellowknife, with only some bylaw enforcement expenditures, has a low level of responsi-

bility for policing.

Broad similarities are present between the groups for the per capita expenditure levels on transportation services. Churchill and Fort Simpson tend to be the very high-ranking exceptions. Possible explanations are considered in the relevant sub-section of Chapter 6B.

The Pas and Churchill incur as high levels of per capita expenditures on environmental health as do most of the N.W.T. municipalities. The low expenditures in Fort Simpson, Inuvik and Thompson reflect the partial involvement of non-municipal agencies in the delivery of the major environmental health service - the water and sewer system.

The burden of total health and welfare expenditures tends to fall with greater weight on Churchill and The Pas in comparison with the other municipalities in both groups. The differential involved is not particularly significant.

Because of land development activity undertaken by several of the N.W.T. municipalities in recent years, environmental development expenditures for this group tend to be well in excess of those found in the Manitoba municipalities.

Except for Inuvik and Fort Simpson, where similarities are found with Churchill, N.W.T. municipalities tend to make much greater expenditures on recreation and community services than their counterparts in Manitoba.

Debt charges expenditures in Inuvik, Fort Simpson and Pine Point are similar to those in Churchill and Thompson. The remainder of the N.W.T. municipalities have debt charges similar to those of The Pas:

The very high per capita expenditure on education in Churchill

reflects the very strong public industrial assessment. Thompson and The Pas are sandwiched between Yellowknife and the remaining N.W.T. municipalities.

Education expenditures and debt charges are important factors explaining most of the differences among the municipalities comprising the two groups. Inter-group differences appear to be influenced primarily by N.W.T. levels of expenditure on recreation and community services and environmental development.

D. N.W.T. BLOCK/MANITOBA INTERMUNICIPAL BLOCK

The following observations are made by focussing mainly on the provincial and territorial averages presented at the bottom of the main tables (consideration of the N.W.T. data is restricted essentially to the years 1971 and 1972).

Per Capita Revenue: Taxation revenue for general and school purposes in the N.W.T. ranks well below both the provincial averages for Manitoba. The difference is reduced when grants-in-lieu are included but the N.W.T. still falls short.

The difference is reduced further when sales of services and "other revenue from own sources" are taken into account. This trend continues as both conditional and unconditional transfers are considered. The addition of non-direct taxation revenue categories results in an average total revenue for N.W.T. municipalities well above the Manitoba average, which excludes Winnipeg and suburbs, and not too far short of the average when the latter are included.

Per Capita Expenditures: The N.W.T. municipalities spend significantly greater amounts on general government expenditures than the average in Manitoba. The performance of the two jurisdictions in terms of total protective services expenditure is similar to the limited provincial average but, by the inclusive average, the Manitoba municipalities make much heavier financial commitments in this service area. The explanation lies mainly with increasing police service responsibilities and demands present for the larger Manitoba municipalities.

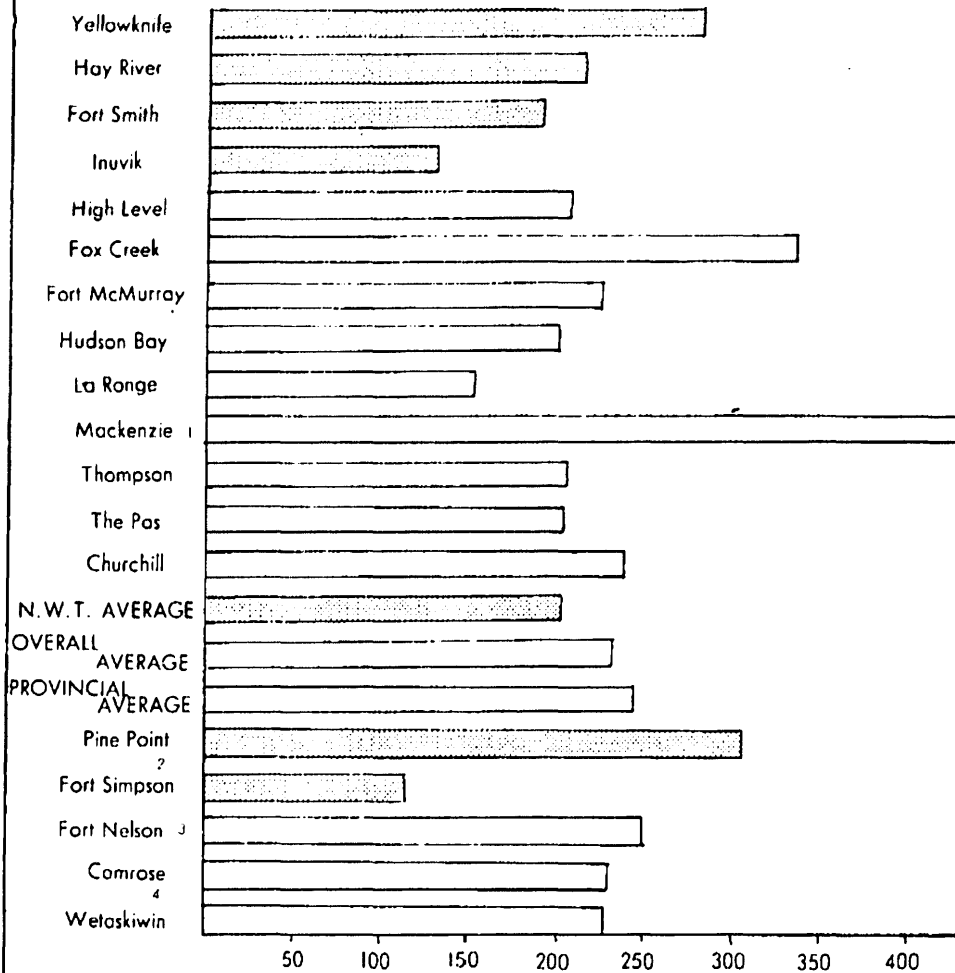
Little difference exists between the N.W.T. and Manitoba in terms of average per capita expenditures on transportation services. Significant differences to the detriment of the N.W.T. municipalities are present, however, for environmental health expenditures by comparison with either provincial average.

The N.W.T. municipalities fare better in terms of total health and welfare expenditures, especially by comparison with the all inclusive provincial average, but the amounts involved are not very substantial. The importance of environmental development activity in the N.W.T. is brought out well by the average data, as is the relatively high expenditures made on recreation and community services.

The N.W.T. municipalities excluding Yellowknife draw down the level of average per capita expenditures on education to a position well under those for Manitoba. Finally, the average debt charge load for the N.W.T. municipalities lies centrally between the two Manitoba provincial averages.

Figure 5- 1

AVERAGE TOTAL REVENUE PER CAPITA 1969-72

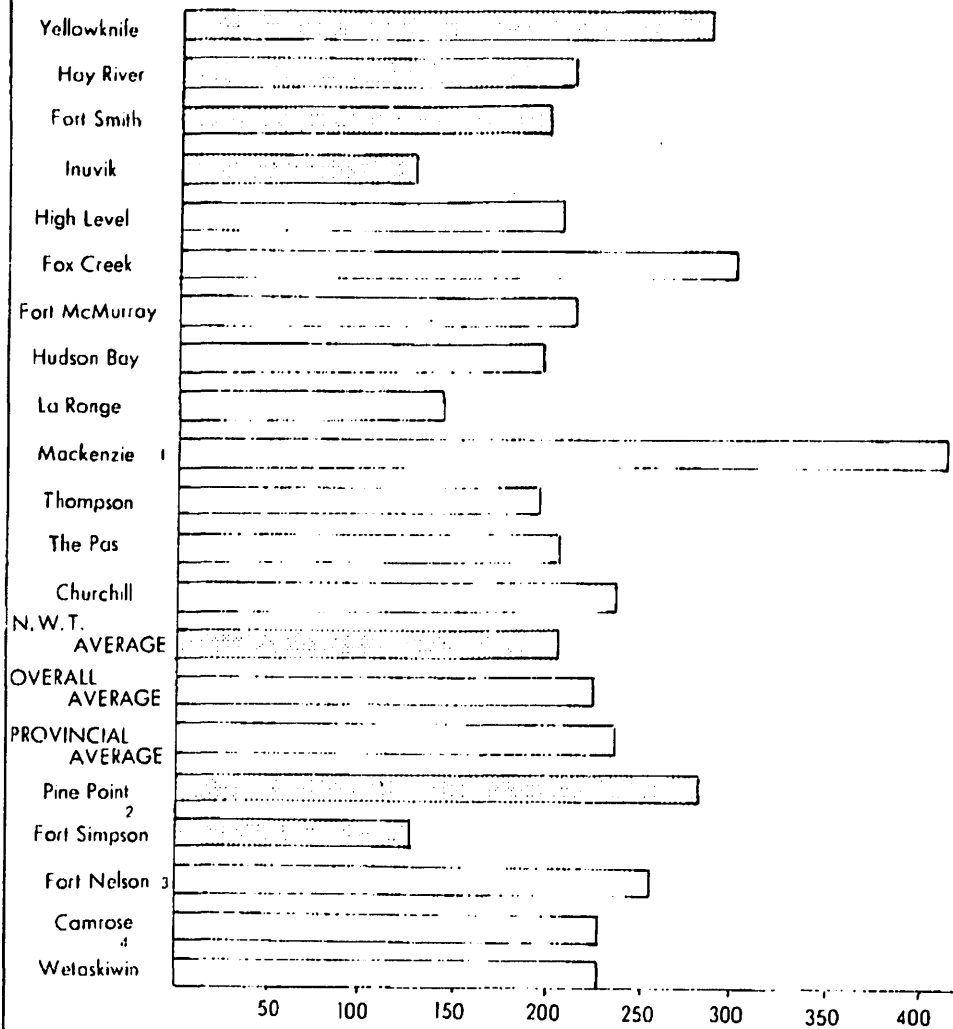


- 1 Mackenzie average, 1970-73
- 2 Pine Point and Fort Simpson, 1971 Data
- 3 Fort Nelson average, 1972-73
- 4 Comrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol III)

See second part of Figure 5-1 on inside of next page fold-out

Figure 5- 1
AVERAGE TOTAL EXPENDITURE
PER CAPITA 1969-72



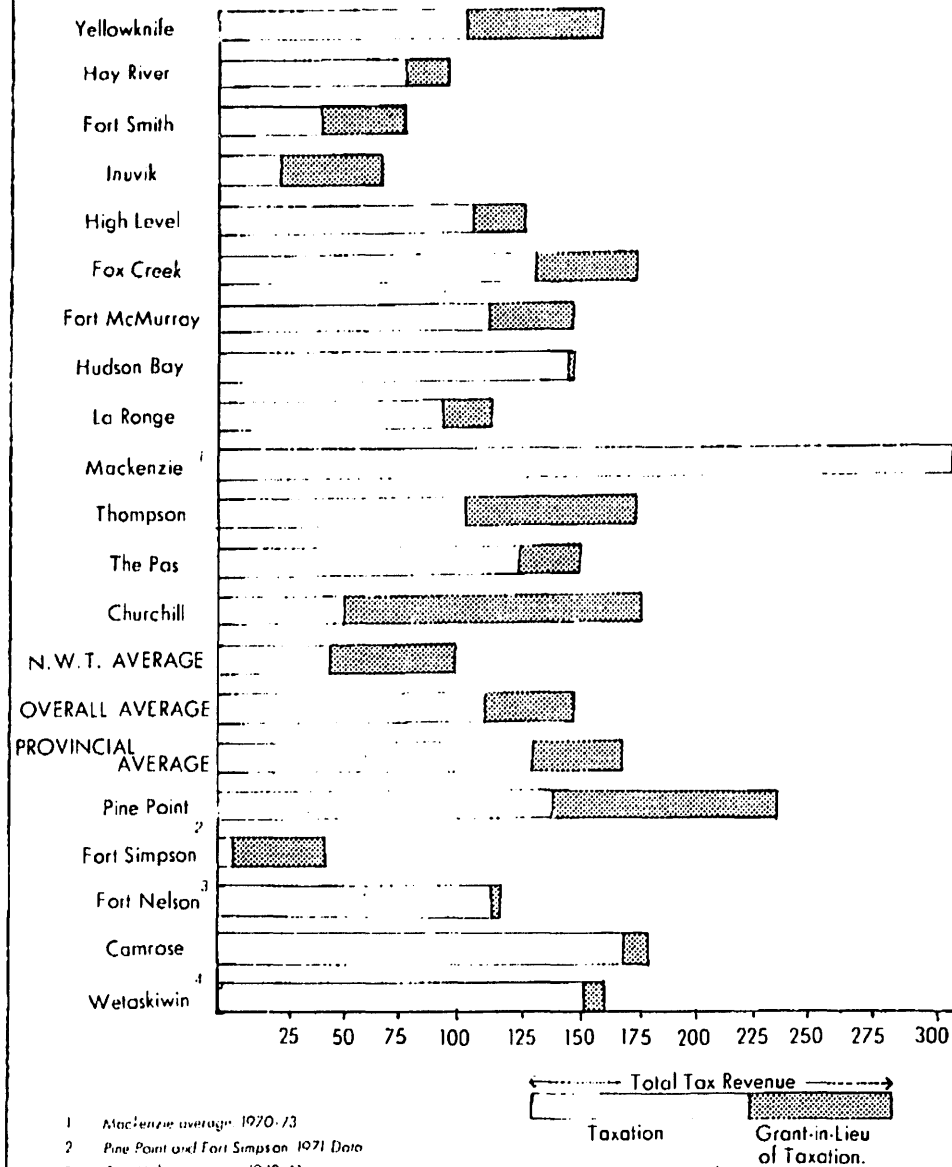
1 Mackenzie average, 1970-73
2 Pine Point and Fort Simpson, 1971 Data
3 Fort Nelson average, 1972-73
4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol. III)
See first part of Figure 5-1 on previous page

TABLE 5-1

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE								
Revenue		246.41		322.96		333.35		
Expenditure	96.9	238.71	101.7	328.42	101.0	336.82		
HAY RIVER								
Revenue		208.82		250.03		229.86		319.05
Expenditure	114.1	238.26	85.6	214.14	97.0	222.89	87.5	279.20
FORT SMITH								
Revenue		169.50		190.79		238.71		
Expenditure	101.7	172.46	125.8	240.04	94.9	226.66		
INUVIK								
Revenue		98.99		135.03		200.17		174.54
Expenditure	100.7	99.69	98.3	132.71	99.3	198.68	123.0	213.82
PINE POINT								
Revenue				306.58		March '71 -		
Expenditure			91.6	280.73		March '72		
FORT SIMPSON								
Revenue				114.60		March '71 -		
Expenditure			111.9	128.25		March '72		
HIGH LEVEL								
Revenue		199.57		201.86		254.13		
Expenditure	94.4	188.41	86.0	173.65	121.2	308.12		
FOX CREEK								
Revenue		334.40		324.27		348.10		
Expenditure	92.3	308.51	86.7	281.10	101.4	352.99		
FORT MACHURRAY								
Revenue		211.23		221.54		255.06		
Expenditure	92.1	194.47	100.3	222.17	96.8	246.92		
HUDSON BAY								
Revenue		183.51		209.51		225.66		
Expenditure	103.8	190.50	92.2	193.10	97.6	220.18		
LA RONCE								
Revenue		154.50		151.50		170.72		
Expenditure	84.9	131.11	99.3	150.46	95.4	162.89		
FORT NELSON								
Revenue						250.07		251.45
Expenditure					102.2	255.63	100.8	253.41
MACKENZIE								
Revenue		304.16		444.11		438.31		495.90
Expenditure	111.0	337.66	97.0	432.97	93.4	409.40	94.3	467.62
THOMPSON								
Revenue		186.09		212.30		262.52		
Expenditure	92.9	172.91	98.7	209.53	95.3	250.22		
THE PAS								
Revenue		194.62		202.47		262.18		
Expenditure	100.2	194.92	104.6	211.78	100.8	264.39		
CAMROSE								
Revenue				219.42		240.67		
Expenditure			100.7	221.01	96.1	231.38		
WETASKIWIN								
Revenue				219.71		237.01		
Expenditure			99.9	219.62	99.4	235.49		
CHURCHILL								
Revenue		201.47		290.71		365.71		
Expenditure	98.7	198.94	104.4	303.48	99.8	365.15		

Figure 5- 2
AVERAGE TOTAL TAXATION REVENUE PER CAPITA 1969-72



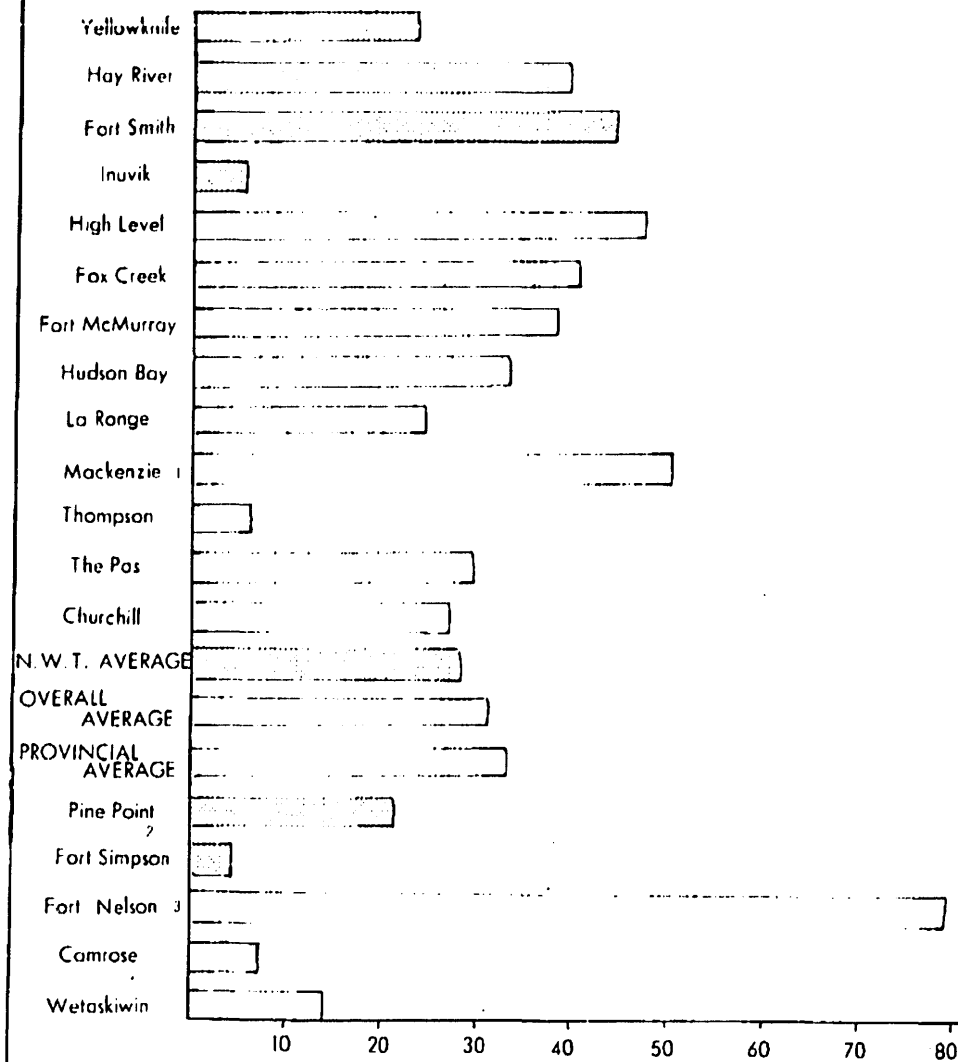
1 Mackenzie average 1970-73
2 Pine Point and Fort Simpson 1971 Data
3 Fort Nelson average 1972-73
4 Camrose and Wetaskiwin 1971 1972 average

Source: Financial Statements (see vol III)

TABLE 5-2
REVENUE 1 - TAXATION AND GRANTS-IN-LIEU

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE								
Taxation	48.6	119.78	38.3	123.66	42.3	140.93		
Grant-in-Lieu	14.4	35.55	10.7	34.43	12.6	41.95		
HAY RIVER								
Taxation	30.5	63.63	37.5	93.62	38.3	88.08	28.6	91.10
Grant-in-Lieu	8.8	18.45	6.5	16.17	9.4	21.49	6.1	19.46
FORT SMITH								
Taxation	25.0	42.30	21.4	40.78	22.2	53.06		
Grant-in-Lieu	15.8	26.75	20.3	38.70	20.4	48.64		
INUVIK								
Taxation	19.6	19.43	22.0	29.65	20.1	40.31	23.8	41.65
Grant-in-Lieu	38.9	38.53	30.5	41.17	23.4	46.85	19.5	33.95
PINE POINT								
Taxation			45.3	138.91	March '71 -			
Grant-in-Lieu			31.7	97.02	March '72			
FORT SIMPSON								
Taxation			5.3	6.08	March '71 -			
Grant-in-Lieu			34.0	38.94	March '72			
HIGH LEVEL								
Taxation	50.1	100.02	51.6	104.33	53.0	134.71		
Grant-in-Lieu	12.0	23.86	10.5	21.16	11.2	28.48		
FOX CREEK								
Taxation	32.8	109.62	42.8	138.79	45.8	159.35		
Grant-in-Lieu	11.1	36.96	16.6	53.77	13.7	47.79		
FORT MacMURRAY								
Taxation	49.6	104.67	48.5	107.53	50.8	129.59		
Grant-in-Lieu	16.2	34.15	16.6	36.76	15.7	40.11		
HUDSON BAY								
Taxation	77.3	141.78	71.9	150.56	67.3	151.79		
Grant-in-Lieu	1.1	2.00	1.0	2.05	.9	2.09		
LA RONGE								
Taxation	63.1	97.45	62.0	93.89	56.0	95.38		
Grant-in-Lieu	14.2	21.93	14.1	21.89	10.4	17.82		
FORT NELSON								
Taxation					50.0	124.71	41.1	103.46
Grant-in-Lieu					1.3	3.19	1.3	3.21
MACKENZIE								
Taxation	60.0	182.36	68.2	302.72	76.3	334.39	81.9	405.91
Grant-in-Lieu	.6	1.91	.5	2.29	.6	2.68	.7	3.51
THOMPSON								
Taxation	51.7	96.28	53.3	113.16	49.0	128.63		
Grant-in-Lieu	32.2	59.89	35.8	76.02	36.4	95.56		
THE PAS								
Taxation	63.2	123.04	61.3	124.03	60.4	158.49		
Grant-in-Lieu	8.2	15.90	12.8	25.98	17.3	45.29		
CAMROSE								
Taxation			74.9	164.41	74.8	180.11		
Grant-in-Lieu			3.3	7.18	3.3	7.84		
WETASKIWIN								
Taxation			66.8	146.78	66.6	157.81		
Grant-in-Lieu			4.5	9.86	4.5	10.75		
CHURCHILL								
Taxation	19.8	39.92	23.4	68.10	20.8	76.09		
Grant-in-Lieu	57.1	115.16	52.2	151.70	46.7	170.63		

Figure 5-3
**AVERAGE SALES OF SERVICE
 REVENUE PER CAPITA 1969-72**



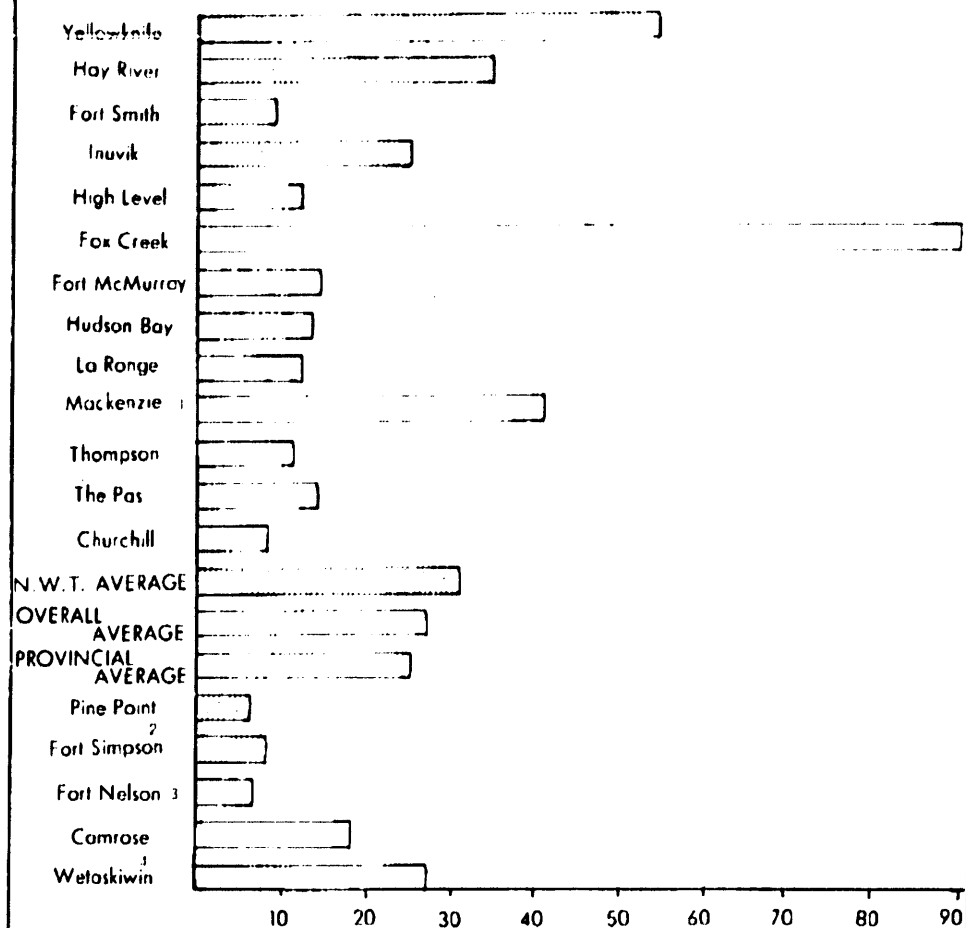
1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol. III)

TABLE 5-3
REVENUE 2 - SALES OF SERVICES

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	5.9	14.54	9.5	30.79	10.4	34.77		
HAY RIVER	18.8	39.22	17.7	44.21	19.1	43.82	13.3	42.53
FORT SMITH	25.0	42.41	21.6	41.25	19.4	46.28		
INUVIK	4.8	4.71	2.1	2.84	4.7	9.31	9.7	16.99
PINE POINT			6.9	21.23	March '71 - March '72			
FORT SIMPSON			3.2	3.64	March '71 - March '72			
HIGH LEVEL	22.0	43.91	21.3	43.05	21.0	53.40		
FOX CREEK	11.9	39.91	13.1	42.44	11.4	39.79		
FORT MacMURRAY	16.6	34.96	17.9	39.72	16.1	40.99		
HUDSON BAY	17.0	31.28	16.3	34.12	16.2	36.57		
LA RONGE	8.4	13.05	17.1	25.94	25.8	44.08		
FORT NELSON					30.9	77.38	31.8	80.06
MACKENZIE	16.7	50.82	12.8	56.67	11.3	49.40	8.6	42.84
THOMPSON	3.9	7.32	2.6	5.45	.1	.32		
THE PAS	15.3	29.82	14.7	29.72	11.7	30.69		
CAMROSE			3.5	7.72	2.9	7.10		
WETASKIWIN			5.9	12.96	6.3	14.98		
CHURCHILL	13.4	26.91	11.8	34.26	13.2	48.11		

Figure 5- 4
AVERAGE OTHER REVENUE
FROM OWN SOURCES PER CAPITA 1969-72



- 1 Mackenzie average, 1970-73
- 2 Pine Point and Fort Simpson, 1971 Data
- 3 Fort Nelson average, 1972-73
- 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol. III)

TABLE 5-4

REVENUE 3 - OTHER REVENUE FROM OWN SOURCES

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	13.1	32.36	26.9	86.99	20.5	68.36		
HAY RIVER	20.6	43.07	19.4	48.52	11.5	26.55	37.1	118.37
FORT SMITH	3.7	6.20	5.6	10.61	6.1	14.53		
INUVIK	6.5	6.48	22.0	29.74	29.1	58.16	26.1	45.63
PINE POINT			2.1	6.49	March '71 - March '72			
FORT SIMPSON			6.9	7.91	March '71 - March '72			
HIGH LEVEL	5.8	11.57	5.9	12.01	6.3	15.97		
FOX CREEK	38.2	127.80	21.4	69.26	22.8	79.47		
FORT MacMURRAY	6.8	14.39	6.7	14.94	6.8	17.41		
HUDSON BAY	3.8	7.06	8.5	17.90	7.5	16.90		
LA RONGE	12.8	19.70	5.3	8.02	5.3	9.01		
FORT NELSON					2.3	5.84	2.3	5.70
MACKENZIE	16.4	49.94	14.0	62.15	6.7	29.44	4.3	21.40
THOMPSON	7.3	13.54	4.7	9.89	3.3	8.63		
THE PAS	7.6	14.71	8.0	16.27	6.4	16.72		
CAMROSE			7.8	17.09	7.6	18.34		
WETASKIWIN			12.1	26.55	11.7	27.79		
CHURCHILL	2.6	5.30	2.8	8.26	4.9	17.89		

Figure 5- 5
AVERAGE GOVERNMENT TOTAL TRANSFERS PER CAPITA 1969-72

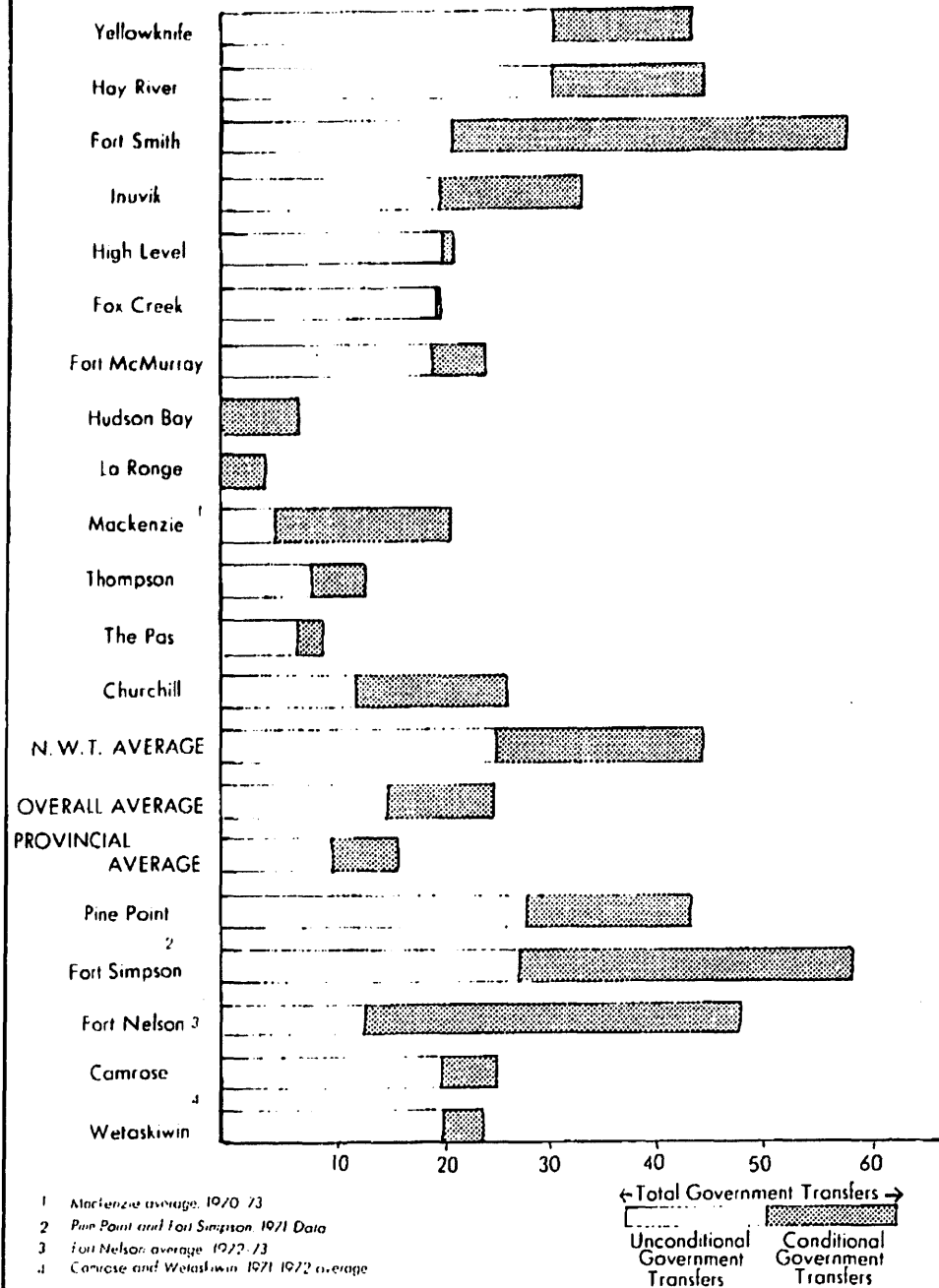
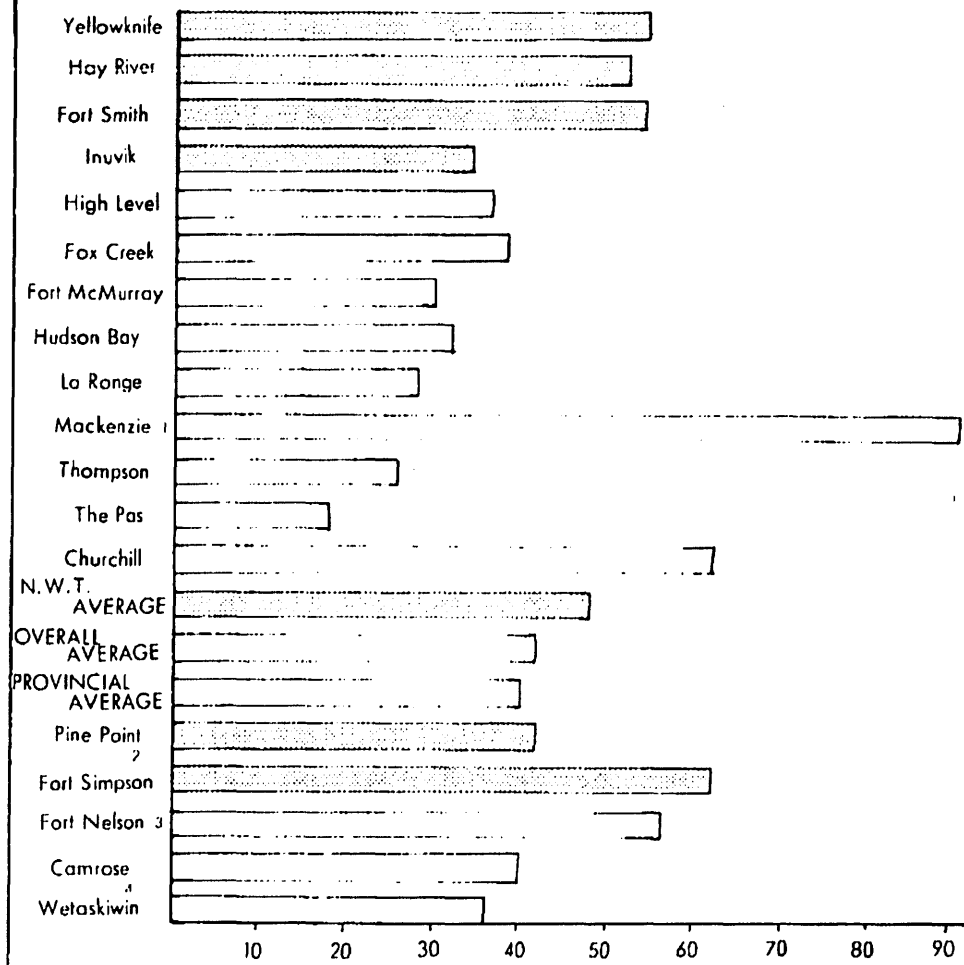


TABLE 5-5

REVENUE 4 - UNCONDITIONAL AND CONDITIONAL GOVERNMENT TRANSFERS

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE								
Unconditional	11.7	28.92	10.2	33.08	9.8	32.61		
Conditional	6.2	15.26	4.4	14.11	4.4	14.73		
HAY RIVER								
Unconditional	15.0	31.27	11.9	29.78	15.9	36.64	10.0	32.06
Conditional	6.3	13.17	7.0	17.74	5.8	13.27	4.9	15.54
FORT SMITH								
Unconditional	11.1	18.87	12.9	24.59	9.4	22.47		
Conditional	19.4	32.96	18.3	34.86	22.5	53.73		
INUVIK								
Unconditional	17.9	17.71	14.2	19.19	13.7	27.34	15.1	26.28
Conditional	12.4	12.12	9.2	12.44	9.1	18.19	5.7	10.03
PINE POINT								
Unconditional			9.2	28.16	March '71 -			
Conditional			4.8	14.78	March '72			
FORT SIMPSON								
Unconditional			23.5	26.95	March '71 -			
Conditional			27.1	31.09	March '72			
HIGH LEVEL								
Unconditional	10.0	19.97	9.9	19.97	8.3	21.21		
Conditional	.0	.24	.7	1.35	.1	.36		
FOX CREEK								
Unconditional	6.0	19.96	6.1	19.77	6.1	21.22		
Conditional	.0	.14	.0	.22	.1	.48		
FORT MacMURRAY								
Unconditional	8.8	18.68	8.4	18.65	7.8	19.95		
Conditional	2.1	4.38	1.8	3.94	2.8	7.01		
HUDSON BAY								
Unconditional	-	-	-	-	-	-		
Conditional	.8	1.39	2.3	4.87	8.1	18.32		
LA RONGE								
Unconditional	-	-	-	-	-	-		
Conditional	1.5	2.27	1.5	2.25	2.5	4.43		
FORT NELSON								
Unconditional					-	-	10.7	26.95
Conditional					15.5	38.95	12.7	32.06
MACKENZIE								
Unconditional	-	-	.0	.30	.1	.29	3.6	17.61
Conditional	6.3	19.13	4.5	19.98	5.0	22.11	.9	4.63
THOMPSON								
Unconditional	2.5	4.68	1.7	3.74	6.9	18.02		
Conditional	2.4	4.38	1.9	4.05	4.3	11.36		
THE PAS								
Unconditional	3.4	6.60	2.9	5.92	3.8	10.02		
Conditional	2.3	4.54	.3	.55	.4	.98		
CAMROSE								
Unconditional			8.9	19.43	8.6	20.78		
Conditional			1.6	3.59	2.7	6.50		
WETASKIWIN								
Unconditional			8.8	19.34	8.8	20.96		
Conditional			1.9	4.22	2.0	4.72		
CHURCHILL								
Unconditional	6.9	14.08	6.0	17.56	2.2	8.00		
Conditional	.1	.14	3.7	10.83	12.3	44.98		

Figure 5- 6
**AVERAGE GENERAL GOVERNMENT
 EXPENDITURE PER CAPITA 1969-72**



1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

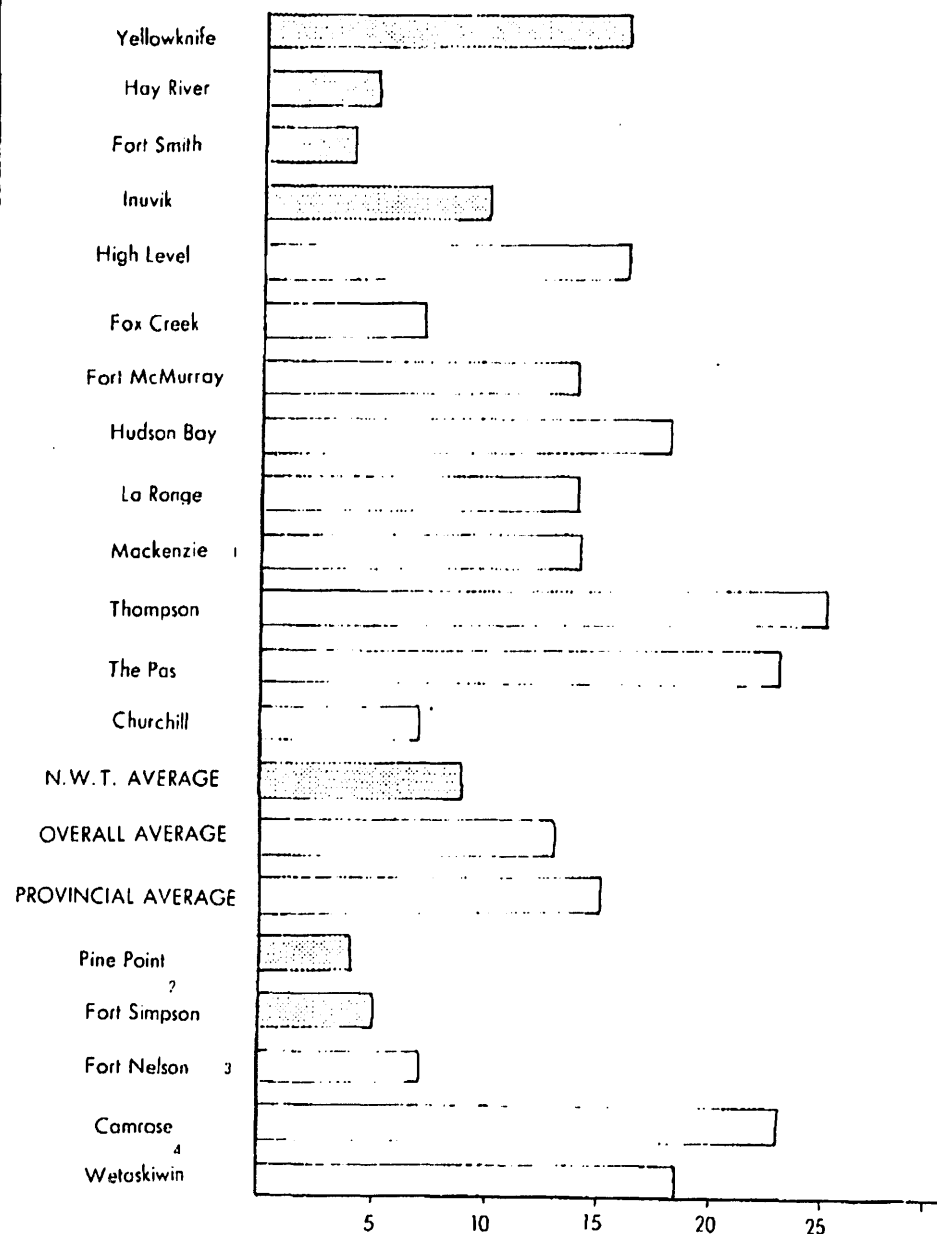
Source: Financial Statements (see vol III)

TABLE 5-6
 EXPENDITURE 1 - GENERAL GOVERNMENT

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE	10.0	23.94	8.7	28.55	9.4	31.79		
HAY RIVER	12.1	28.98	10.9	23.28	11.6	25.77	10.6	29.55
FORT SMITH	14.0	24.06	12.8	30.79	14.8	33.44		
INUVIK	15.4	15.34	13.1	17.32	10.8	21.41	10.1	21.65
PINE POINT			7.4	20.78	March '71 - March '72			
FORT SIMPSON			24.3	31.17	March '71 - March '72			
HIGH LEVEL	8.4	15.77	9.5	16.52	8.3	25.61		
FOX CREEK	7.0	21.69	6.4	17.91	5.5	19.39		
FORT MacMURRAY	6.6	12.83	7.4	16.42	7.1	17.47		
HUDSON BAY	7.2	13.72	8.8	17.03	8.8	19.36		
LA RONGE	9.6	12.62	9.0	13.57	11.3	18.42		
FORT NELSON					10.6	27.20	11.5	29.11
MACKENZIE	13.9	46.96	11.5	49.72	9.9	40.41	9.2	43.00
THOMPSON	7.8	13.44	6.5	13.58	5.7	14.17		
THE PAS	4.2	8.20	4.1	8.67	4.4	11.53		
CAMROSE			9.2	20.34	8.5	19.71		
WETASKIWIN			7.6	16.78	8.1	19.04		
CHURCHILL	12.6	25.16	11.8	35.90	13.4	49.10		

Figure 5-7

AVERAGE PROTECTIVE SERVICES
EXPENDITURE PER CAPITA 1969-72



1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

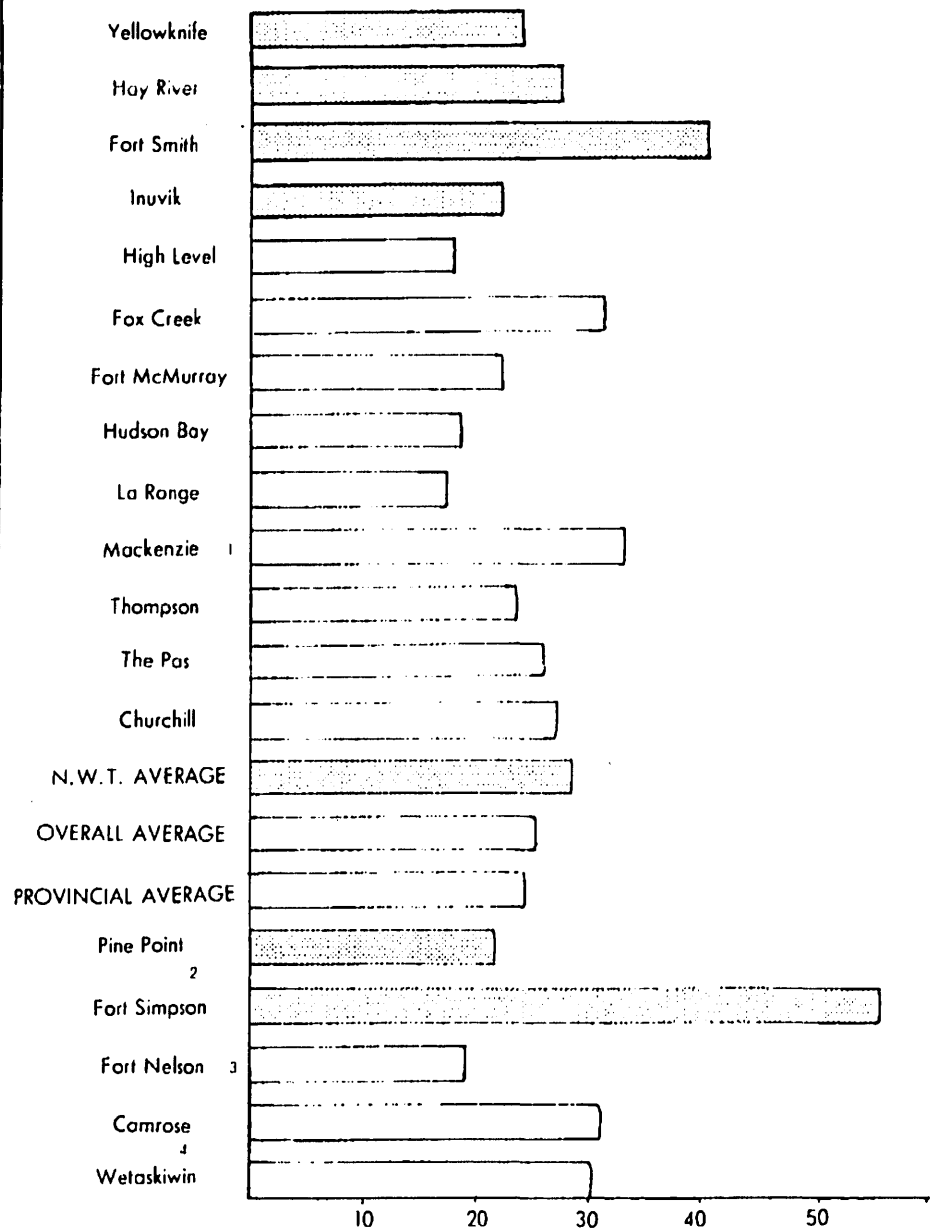
Source: Financial Statements (see vol III)

TABLE 5-7

EXPENDITURE 2 - PROTECTIVE SERVICES

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	6.2	14.85	5.5	18.05	6.5	22.06		
HAY RIVER	2.1	5.03	2.8	6.21	2.4	5.39	3.6	9.95
FORT SMITH	1.0	1.78	2.3	5.64	3.0	6.84		
INUVIK	10.2	10.14	9.5	12.56	4.2	8.39	6.0	12.75
PINE POINT			1.4	4.03	March '71 - March '72			
FORT SIMPSON			4.2	5.41	March '71 - March '72			
HIGH LEVEL	7.4	13.99	11.0	19.04	6.4	19.62		
FOX CREEK	1.7	5.32	1.5	4.30	3.5	12.17		
FORT MacMURRAY	6.7	13.02	6.7	14.85	6.9	17.04		
HUDSON BAY	8.8	16.67	9.5	18.26	9.4	20.67		
LA RONGE	10.3	13.46	10.2	15.29	12.3	19.99		
FORT NELSON					1.5	3.76	4.3	10.79
MACKENZIE	3.3	11.04	4.0	17.32	3.6	14.64	2.6	12.27
THOMPSON	12.3	21.15	13.4	28.15	12.8	32.05		
THE PAS	10.6	20.79	12.0	25.43	10.9	28.87		
CAMROSE			9.8	21.75	10.3	23.92		
WETASKIWIN			7.7	16.87	8.5	19.95		
CHURCHILL	3.3	6.63	3.1	9.33	2.8	10.13		

Figure 5- 8
AVERAGE TRANSPORTATION SERVICES
EXPENDITURE PER CAPITA 1969-72



1 Mackenzie average, 1970-73
2 Pine Point and Fort Simpson, 1971 Data
3 Fort Nelson average, 1972-73
4 Camrose and Wetaskiwin 1971-1972 average

Source: Financial Statements (see vol III)

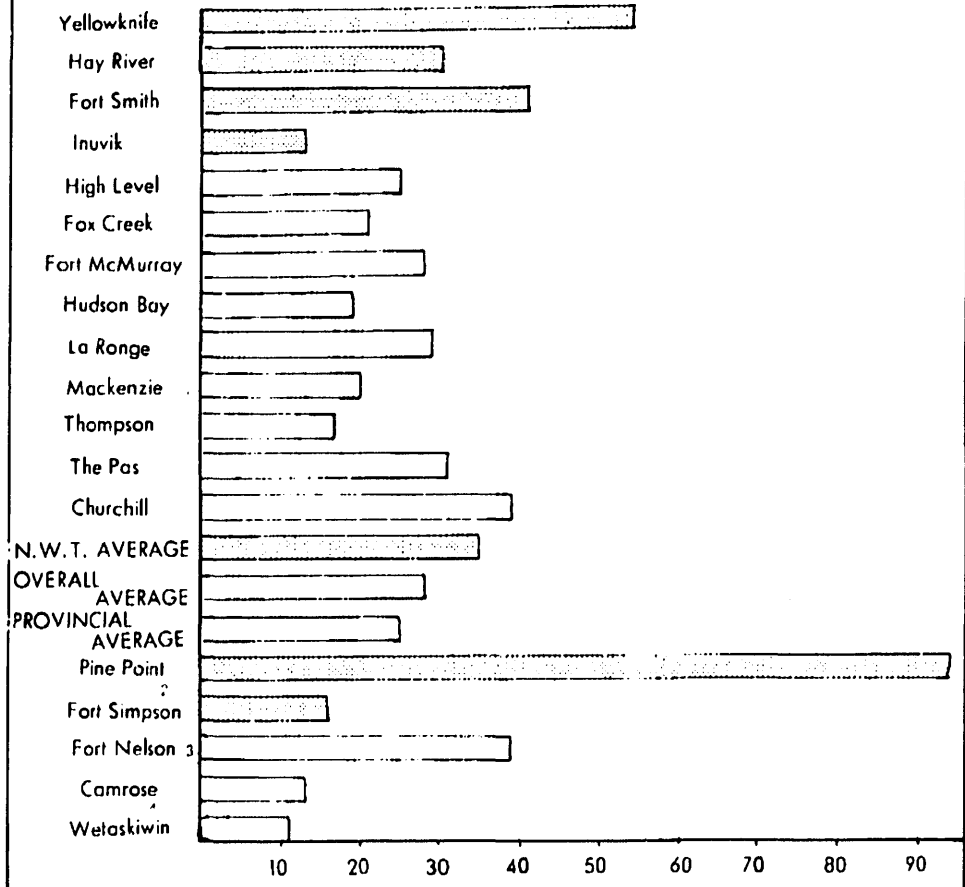
TABLE 5-8

EXPENDITURE 3 - TRANSPORTATION SERVICES

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	9.8	23.32	7.3	24.37	7.7	25.94		
HAY RIVER	12.4	29.66	13.2	28.19	12.2	27.33	15.5	43.28
FORT SMITH	30.7	53.02	17.4	45.59	14.2	32.21		
INUVIK	17.2	17.12	26.2	34.79	13.9	27.58	14.5	30.96
PINE POINT			7.7	21.61	March '71 - March '72			
FORT SIMPSON			42.8	54.86	March '71 - March '72			
HIGH LEVEL	5.9	11.14	11.0	19.12	7.5	23.26		
FOX CREEK	8.6	26.62	11.7	32.92	12.4	43.92		
FORT MacMURRAY	10.5	20.46	10.0	22.26	11.5	28.50		
HUDSON BAY	8.2	15.70	10.0	19.22	7.7	16.92		
LA RONGE	11.2	14.67	11.6	17.49	12.5	20.35		
FORT NELSON					6.0	15.44	8.9	22.46
MACKENZIE	9.8	33.67	8.9	38.41	7.6	31.31	6.1	28.74
THOMPSON	9.6	16.69	9.5	19.99	10.5	26.28		
THE PAS	13.9	27.02	12.2	25.73	13.4	35.46		
CAMROSE			14.8	32.62	12.8	29.64		
WETASKIWIN			12.7	27.87	13.5	31.87		
CHURCHILL	11.3	22.46	12.4	37.61	10.4	38.08		

Figure 5- 9

AVERAGE ENVIRONMENTAL HEALTH SERVICES
EXPENDITURE PER CAPITA 1969-72



1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin 1971-1972 average

Source: Financial Statements (see vol III)

TABLE 5-9

EXPENDITURE 4 - ENVIRONMENTAL HEALTH SERVICES

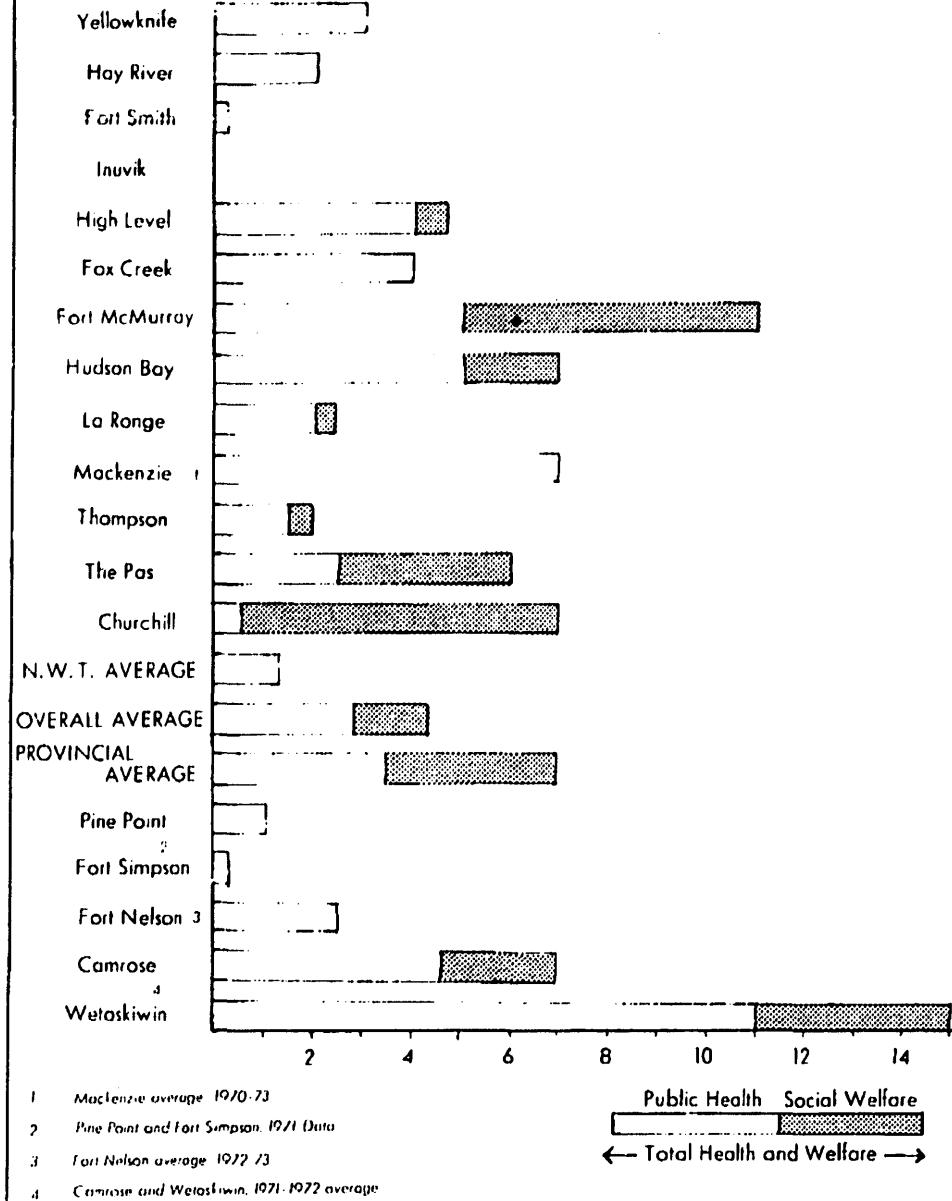
MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	19.5	46.68	17.9	59.71	17.6	59.41		
HAY RIVER	13.7	32.38	14.0	29.92	13.3	29.71	13.8	38.61
FORT SMITH	23.3	40.15	17.4	45.59	20.4	46.29		
INUVIK	12.3	12.31	9.7	12.93	7.4	14.79	8.3	17.64
PINE POINT			33.3	93.63	March '71 - March '72			
FORT SIMPSON			12.2	15.63	March '71 - March '72			
HIGH LEVEL	14.2	26.69	13.2	22.84	8.3	25.52		
FOX CREEK	7.7	23.73	8.9	25.08	4.7	16.60		
FORT MacMURRAY	14.1	27.46	11.8	26.19	13.2	32.59		
HUDSON BAY	9.3	17.75	10.0	19.33	10.3	22.74		
LA RONGE	22.2	29.14	18.5	27.91	20.0	32.57		
FORT NELSON					14.8	37.84	15.9	40.41
MACKENZIE	5.1	17.08	5.7	24.86	5.3	21.60	3.8	17.70
THOMPSON	11.6	20.02	9.4	19.47	6.5	16.14		
THE PAS	14.9	29.05	13.8	29.31	15.7	41.68		
CAMROSE			5.5	12.05	5.7	13.28		
WETASKIWIN			4.6	10.01	5.2	12.29		
CHURCHILL	17.4	34.70	16.5	50.01	18.0	65.89		

TABLE 5-10

EXPENDITURE 5 - PUBLIC HEALTH AND SOCIAL WELFARE

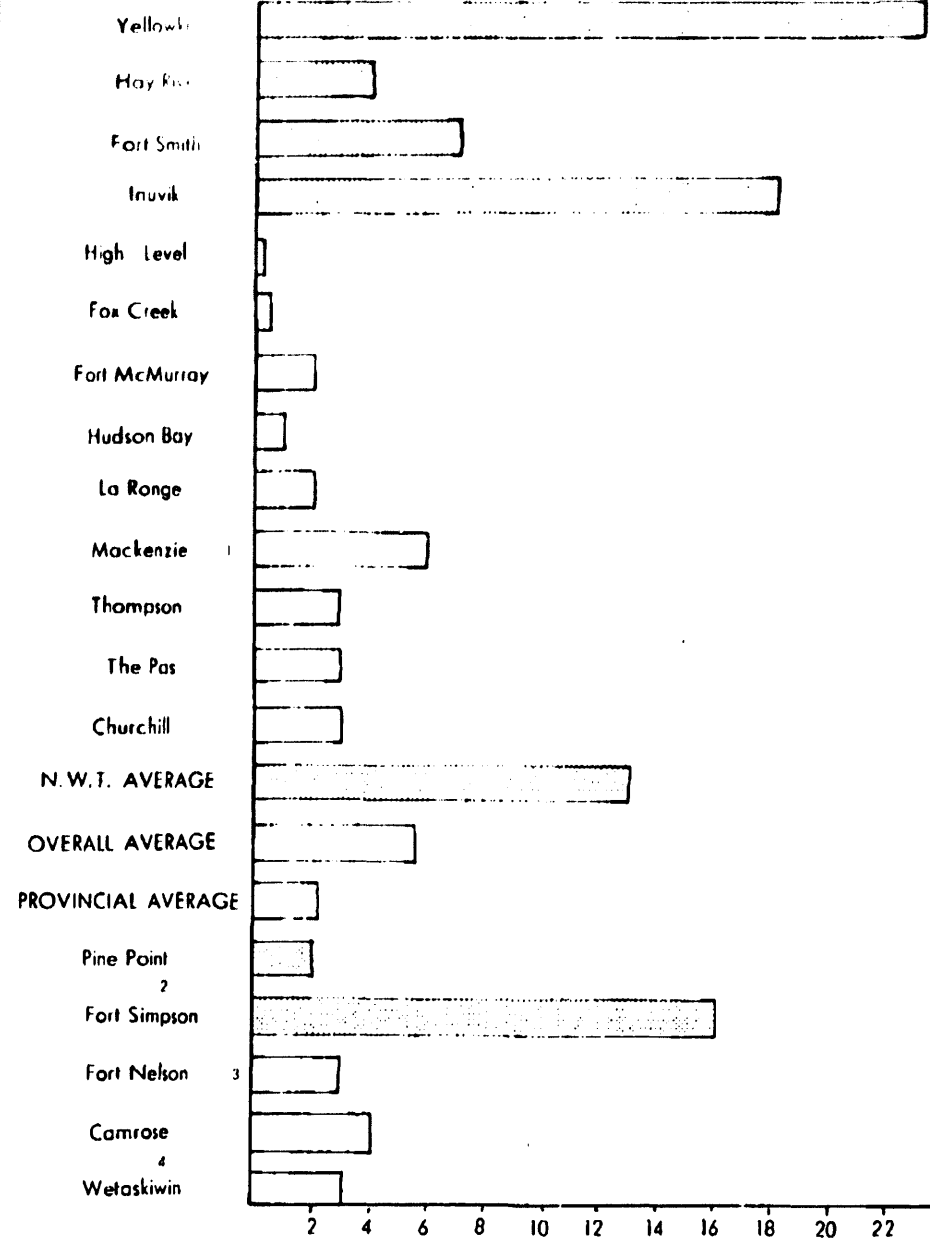
MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE								
Health	1.4	3.43	.9	2.92	.8	2.89		
Welfare	-	-	-	-	-	-		
HAY RIVER								
Health	.9	2.20	.9	1.83	.8	1.75	.6	1.54
Welfare	-	-	-	-	-	-		
FORT SMITH								
Health	.2	.29	.1	.28	-	-		
Welfare	-	-	-	-	-	-		
INUUVIK								
Health	-	-	-	-	-	-		
Welfare	-	-	-	-	-	-		
PINE POINT								
Health			.5	1.34	March '71 -			
Welfare			-	-	March '72			
FORT SIMPSON								
Health			.2	.25	March '72 -			
Welfare			-	-	March '72			
HIGH LEVEL								
Health	1.0	1.83	1.5	2.56	2.5	7.59		
Welfare	.1	.26	1.1	1.90	.1	.26		
FOX CREEK								
Health	.5	1.41	1.6	4.47	2.0	7.08		
Welfare	-	-	-	-	-	-		
FORT MACHURRAY								
Health	3.0	5.75	1.0	2.11	1.2	2.88		
Welfare	2.5	4.76	2.6	5.72	2.5	6.13		
HUDSON BAY								
Health	2.9	5.44	2.9	5.62	2.5	5.40		
Welfare	.9	1.78	1.1	2.08	.9	1.93		
LA RONGE								
Health	1.7	2.23	1.4	2.05	1.2	1.94		
Welfare	.0	.10	.5	.70	.4	.69		
FORT NELSON								
Health					.9	2.38	1.1	2.71
Welfare					-	-	-	-
MACKENZIE								
Health	1.3	4.52	1.5	6.66	2.0	8.04	1.9	8.85
Welfare	-	-	-	-	-	-	-	-
THOMPSON								
Health	.6	1.11	1.0	2.12	.8	1.99		
Welfare	.5	.91	.0	.01	-	-		
THE PAS								
Health	1.5	2.91	1.0	2.15	1.0	2.54		
Welfare	3.2	6.20	1.0	2.07	.2	.55		
CAMROSE								
Health			2.0	4.43	2.1	4.77		
Welfare			1.1	2.41	.7	1.66		
WETASKIWIN								
Health			6.0	13.07	3.9	9.09		
Welfare			1.5	3.24	1.8	4.25		
CHURCHILL								
Health	.1	.13	.0	.15	.4	1.58		
Welfare	3.1	6.20	2.8	8.58	2.4	8.71		

Figure 5-10
AVERAGE HEALTH AND WELFARE
EXPENDITURE PER CAPITA 1969-72



Source: Financial Statements (see vol III)

Figure 5-11
AVERAGE ENVIRONMENTAL DEVELOPMENT
EXPENDITURE PER CAPITA 1969-72



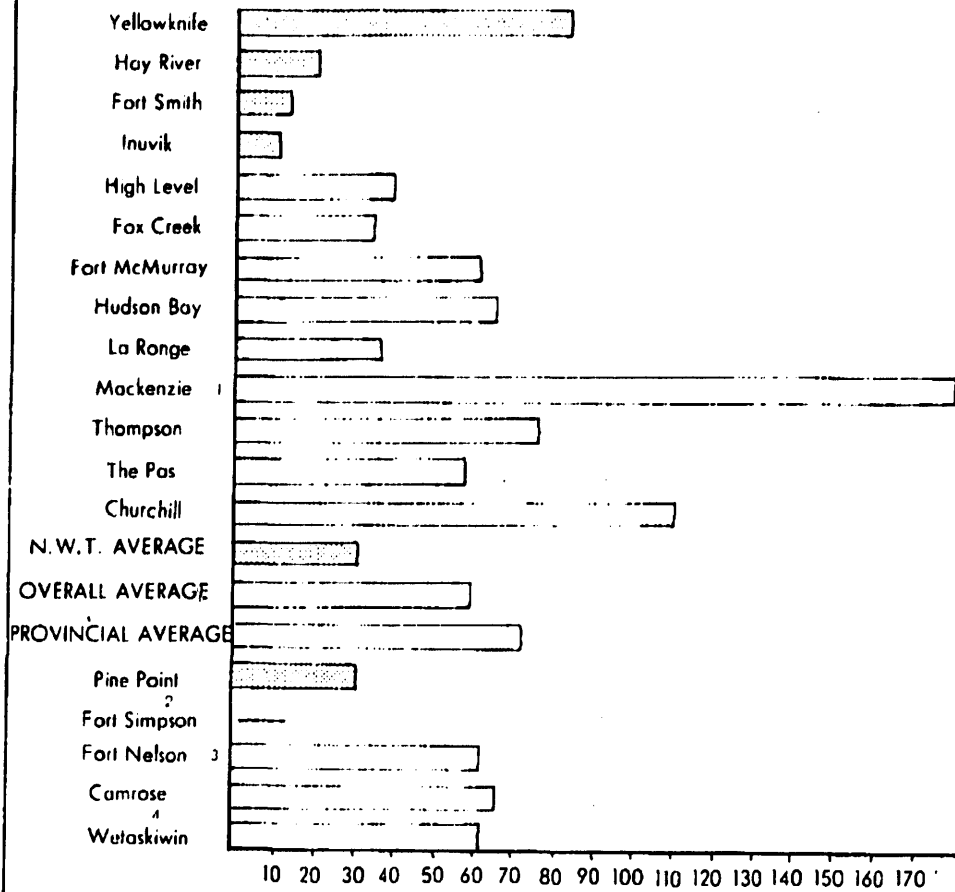
1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol III)

TABLE 5-11
EXPENDITURE 6 - ENVIRONMENTAL DEVELOPMENT

MUNICIPALITIES	1970		1971		1972		1973	
	Σ	p.c.	Σ	p.c.	Σ	p.c.	Σ	p.c.
YELLOWKNIFE	4.5	10.80	14.9	49.06	8.9	29.95		
HAY RIVER	3.1	7.39	.9	1.98	1.0	2.17	.9	2.58
FORT SMITH	1.5	2.56	1.5	3.52	8.7	19.66		
INUVIK	7.5	7.45	16.5	21.89	18.2	36.07	8.2	17.63
PINE POINT			.8	2.35	March '71 - March '72			
FORT SIMPSON			12.2	15.59	March '71 - March '72			
HIGH LEVEL	.2	.42	.2	.32	.2	.56		
FOX CREEK	.0	.22	.3	.95	.2	.69		
FORT MacMURRAY	1.3	2.58	.8	1.82	.5	1.26		
HUDSON BAY	.0	.12	.1	.20	2.0	4.46		
LA RONGE	2.6	3.38	.2	.36	.9	1.62		
FORT NELSON					.6	1.40	2.2	5.48
MACKENZIE	3.7	12.33	1.2	5.07	1.3	5.12	.8	3.52
THOMPSON	.8	1.31	2.6	5.50	1.3	3.21		
THE PAS	1.8	3.49	1.7	3.65	1.4	3.64		
CAMROSE			1.3	2.77	2.2	5.02		
WETASKIWIN			.7	1.59	1.7	4.06		
CHURCHILL	.3	.66	.4	1.12	3.1	11.22		

Figure 5-12
AVERAGE EDUCATION
EXPENDITURE PER CAPITA 1969-72



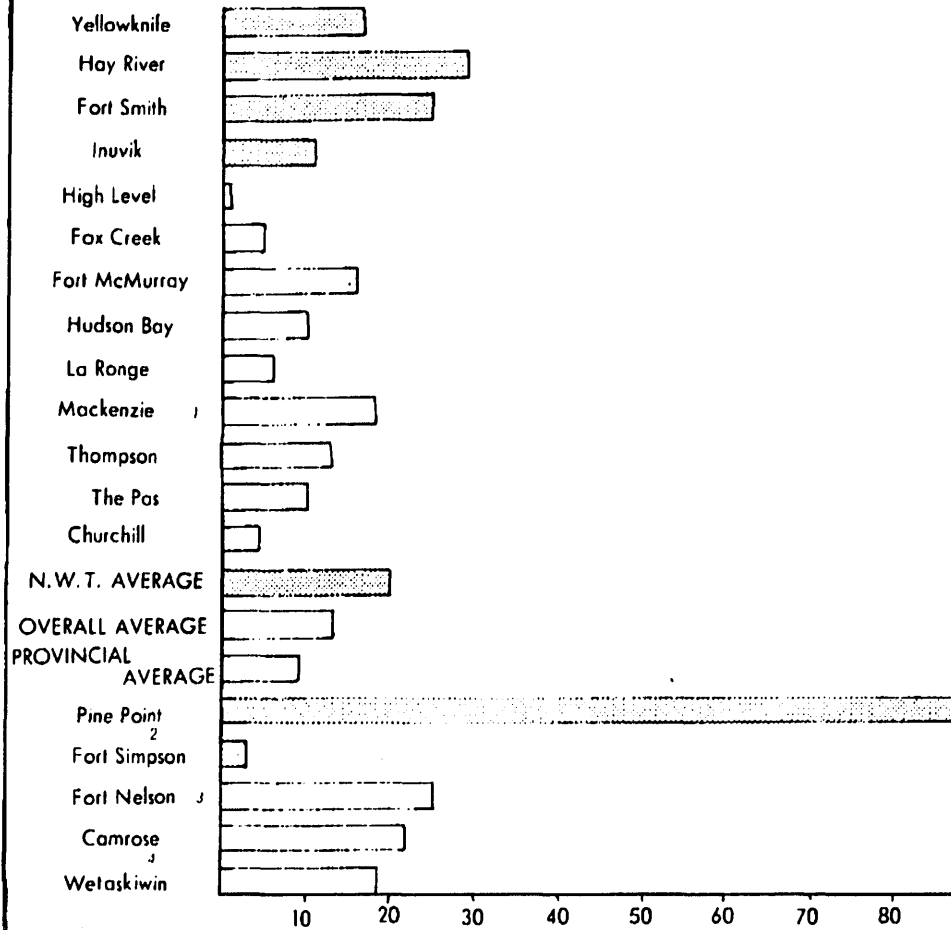
- 1 Mackenzie average, 1970-73
- 2 Pine Point and Fort Simpson, 1971 Data
- 3 Fort Nelson average, 1972-73
- 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol III)

TABLE 5-12
EXPENDITURE 7 - EDUCATION

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	32.5	77.61	28.8	94.59	25.8	86.97		
HAY RIVER	6.3	15.10	10.6	12.78	12.0	26.82	9.7	27.14
FORT SMITH	6.4	11.04	5.3	12.82	7.0	16.02		
INUVIK	6.2	6.22	6.8	9.08	7.3	14.57	7.1	15.21
PINE POINT			11.0	30.76	March '71 - March '72			
FORT SIMPSON			-	-	March '71 - March '72			
HIGH LEVEL	17.6	33.08	20.3	35.19	14.4	44.38		
FOX CREEK	12.7	39.18	7.9	22.35	11.4	40.21		
FORT MacMURRAY	24.7	48.10	22.7	50.38	19.3	47.70		
HUDSON BAY	35.5	67.65	34.2	66.03	25.0	55.13		
LA RONGE	27.9	36.63	25.4	38.19	22.8	37.12		
FORT NELSON					26.4	67.53	21.9	55.50
MACKENZIE	30.3	102.48	42.1	182.22	46.5	190.36	51.2	239.34
THOMPSON	39.4	68.15	37.4	78.43	41.6	104.17		
THE PAS	27.8	54.24	26.7	56.64	30.3	80.14		
CAMROSE			28.7	63.38	29.7	68.64		
WETASKIWIN			28.2	61.99	26.5	62.37		
CHURCHILL	47.6	94.68	46.1	139.79	43.7	159.69		

Figure 5-13
**AVERAGE RECREATION AND COMMUNITY SERVICES
 EXPENDITURE PER CAPITA 1969-72**



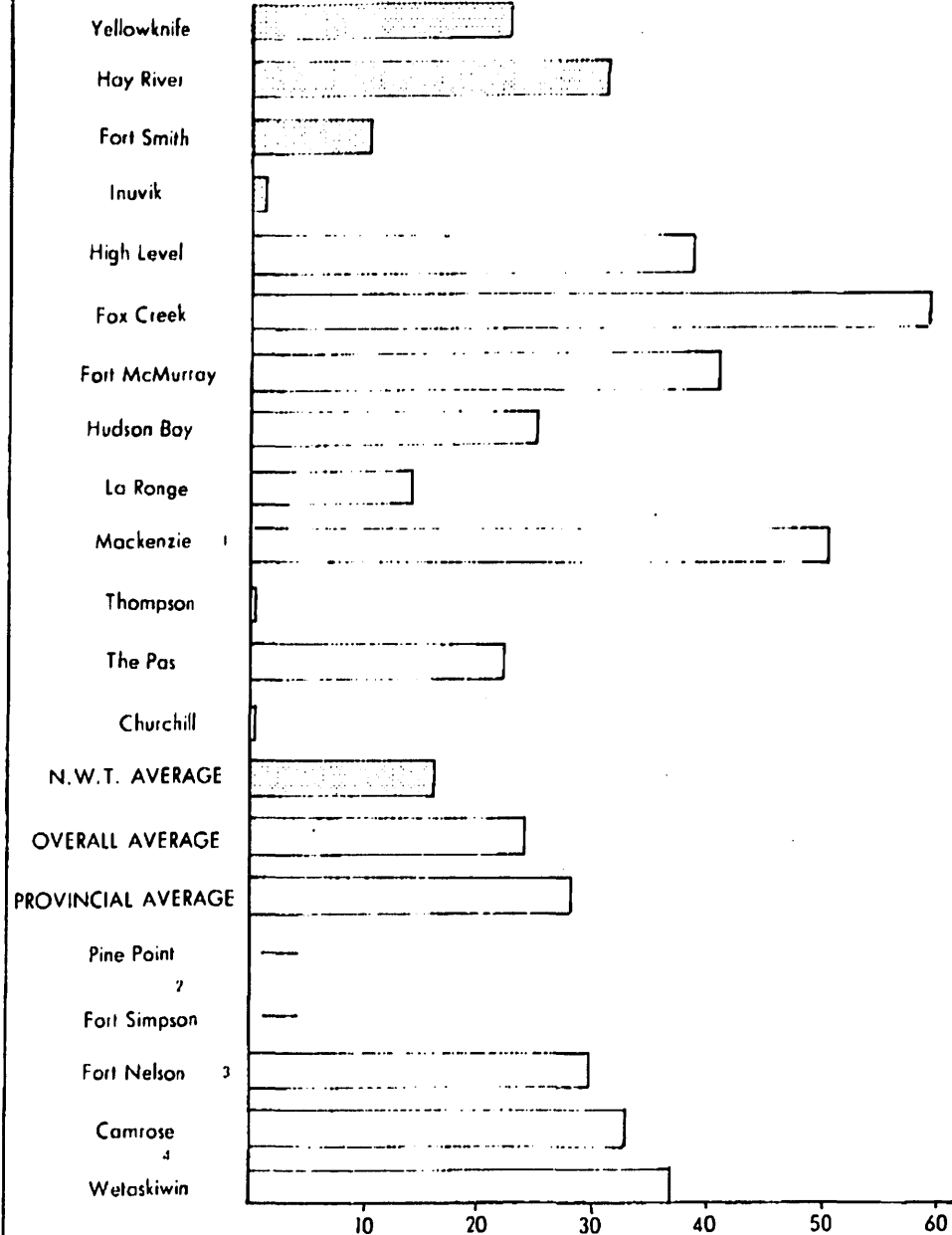
1 Mackenzie average, 1970-71
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol III)

TABLE 5-13
 EXPENDITURE 8 - RECREATION AND CULTURAL SERVICES

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE	7.8	18.72	5.6	18.42	6.2	20.94		
HAY RIVER	11.0	26.19	16.3	34.91	18.7	41.79	12.0	33.43
FORT SMITH	12.9	22.28	10.6	25.45	12.0	27.12		
INUVIK	7.6	7.60	9.6	12.71	10.1	20.06	15.3	32.63
PINE POINT			29.4	82.40	March '71 - March '72			
FORT SIMPSON			2.3	3.01	March '71 - March '72			
HIGH LEVEL	.2	.30	.5	.92	.6	1.82		
FOX CREEK	1.5	4.58	2.1	5.88	1.6	5.68		
FORT MacMURRAY	4.7	9.04	8.8	19.66	10.8	26.59		
HUDSON BAY	3.3	6.21	8.5	16.40	6.0	13.15		
LA RONGE	3.8	4.96	4.0	6.03	4.2	6.78		
FORT NELSON					7.3	18.63	12.2	31.04
MACKENZIE	5.8	19.60	4.5	19.69	4.6	18.93	3.1	14.64
THOMPSON	7.1	12.31	6.9	14.53	7.3	18.17		
THE PAS	6.1	11.86	5.2	11.07	3.9	10.24		
CAMROSE			10.2	22.65	9.6	22.22		
WETASKIWIN			8.0	17.62	8.4	19.67		
CHURCHILL	.8	1.67	.5	1.65	3.2	11.82		

Figure 5- 14
**AVERAGE DEBT CHARGES
 EXPENDITURE PER CAPITA 1969-72**



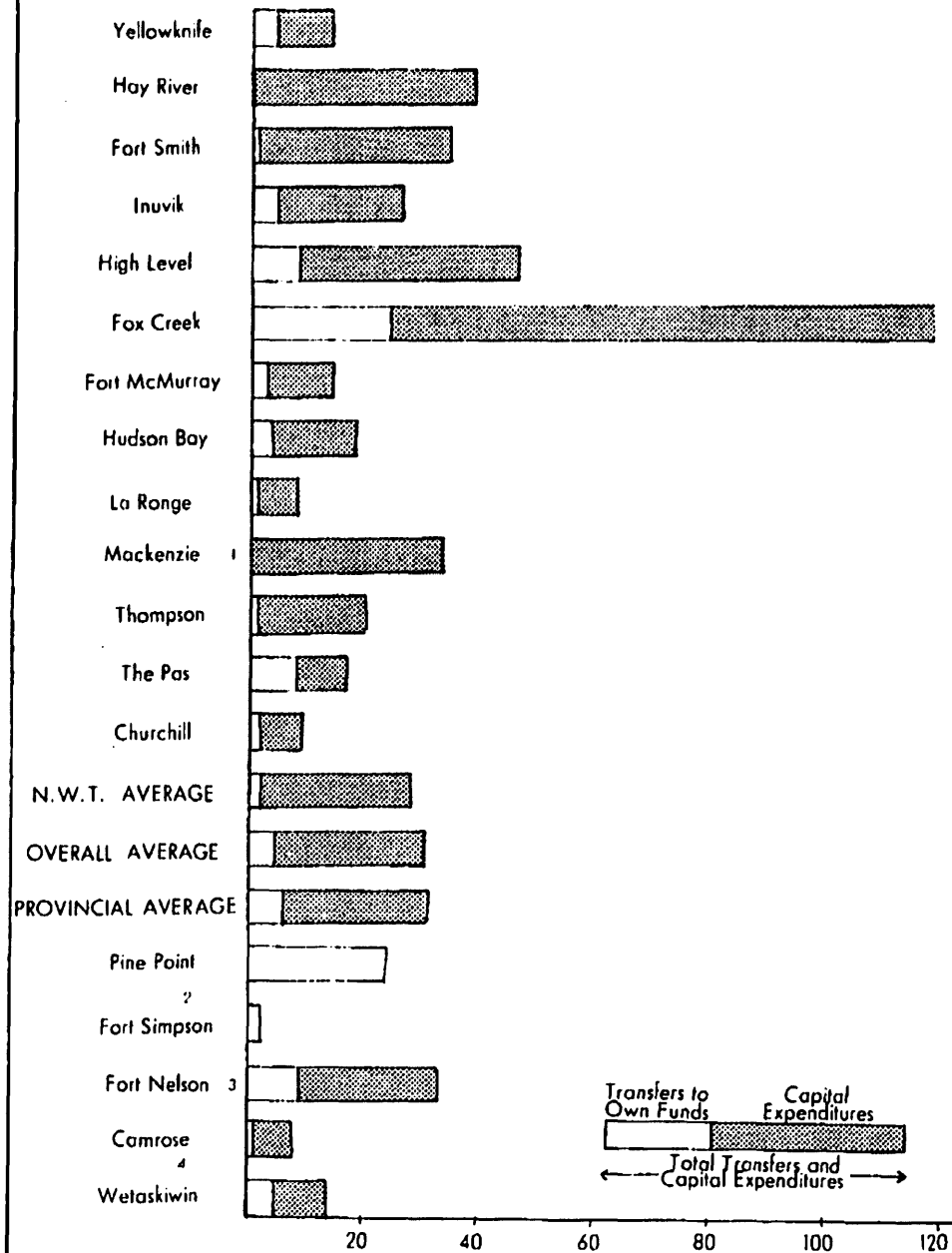
1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol III)

TABLE 5-14
 EXPENDITURE 9 - DEBT CHARGES

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	6.9	16.50	7.8	25.54	10.2	34.39		
HAY RIVER	9.7	23.04	22.8	48.76	12.6	28.07	30.6	85.40
FORT SMITH	3.3	5.68	4.0	9.71	8.7	19.65		
INUVIK	.7	.65	.4	.53	1.3	2.49	3.4	7.17
PINE POINT			-	-	March '71 - March '72			
FORT SIMPSON			-	-	March '71 - March '72			
HIGH LEVEL	19.5	36.81	21.2	36.79	14.8	45.48		
FOX CREEK	16.7	51.44	19.2	54.08	16.0	56.36		
FORT MacMURRAY	15.9	30.88	22.2	49.22	20.5	50.63		
HUDSON BAY	12.7	24.21	12.8	24.77	11.7	25.75		
LA RONGE	8.1	10.64	9.7	14.59	13.5	21.93		
FORT NELSON					11.0	28.07	13.0	32.89
MACKENZIE	16.0	53.98	9.9	43.00	12.9	53.02	11.0	51.51
THOMPSON	-	-	-	-	.5	1.27		
THE PAS	9.8	19.15	9.6	20.41	9.7	25.80		
CAMROSE			14.9	32.93	14.2	32.87		
WETASKIWIN			17.1	37.53	15.9	37.37		
CHURCHILL	-	-	.2	.66	.2	.66		

Figure 5-15/16
**AVERAGE TOTAL TRANSFERS AND
 CAPITAL EXPENDITURES PER CAPITA 1969-72**



1 Mackenzie average, 1970-73
 2 Pine Point and Fort Simpson, 1971 Data
 3 Fort Nelson average, 1972-73
 4 Camrose and Wetaskiwin, 1971-1972 average

Source: Financial Statements (see vol. III)

TABLE 5-15
EXPENDITURE 10 - TRANSFERS TO RESERVES AND OTHER FUNDS

MUNICIPALITIES	1970		1971		1972		1973	
	£	p.c.	£	p.c.	£	p.c.	£	p.c.
YELLOWKNIFE	-	-	-	-	4.3	14.55	-	-
HAY RIVER	-	-	-	-	-	-	.2	.60
FORT SMITH	-	-	1.2	2.80	-	-	-	-
INUVIK	-	-	-	-	8.7	17.34	.6	1.25
PINE POINT	-	-	-	-	March '71 - March '72			
FORT SIMPSON	-	-	-	-	March '71 - March '72			
HIGH LEVEL	6.1	11.51	.6	1.00	6.0	18.51	-	-
FOX CREEK	.2	.57	23.5	66.10	8.5	30.05	-	-
FORT MacMURRAY	2.2	4.21	.2	.34	2.7	6.66	-	-
HUDSON BAY	.3	.50	2.2	4.16	.9	1.97	-	-
LA RONGE	.4	.45	2.5	3.71	.3	.45	-	-
FORT NELSON	-	-	-	-	4.6	11.63	2.6	6.49
MACKENZIE	-	-	-	-	-	-	-	-
THOMPSON	.2	.32	.0	.20	1.4	3.52	-	-
THE PAS	3.3	6.41	2.6	5.60	5.0	13.15	-	-
CAMROSE	-	-	.6	1.42	.4	.81	-	-
WETASKIWIN	-	-	1.7	3.69	2.8	6.58	-	-
CHURCHILL	.7	1.30	.1	.33	.8	3.01	-	-

See Table 5-16 on next page for Capital Expenditures

TABLE 5-16
EXPENDITURE 11 - CAPITAL EXPENDITURES FROM REVENUE
[AND OTHER FISCAL SERVICES]

MUNICIPALITIES	1970		1971		1972		1973	
	%	p.c.	%	p.c.	%	p.c.	%	p.c.
YELLOWKNIFE	1.2	2.87	2.6	8.40	2.4	7.93		
HAY RIVER	28.7	68.28	7.6	16.29	15.3	34.08	2.5	7.12
FORT SMITH	6.7	11.59	25.7	61.73	11.2	25.43		
INUVIK	22.9	22.88	8.2	10.91	18.1	35.98	26.6	56.94
PINE POINT			8.5	23.86	March '71 - March '72			
FORT SIMPSON			1.8	2.34	March '71 - March '72			
HIGH LEVEL	19.4	36.61	10.0	17.45	31.0	95.91		
FOX CREEK	43.4	133.75	16.8	47.06	34.2	120.82		
FORT MacMURRAY	8.0	15.67	5.9	13.21	3.8	9.46		
HUDSON BAY	10.9	20.77	-	-	14.9	32.71		
LA RONGE	2.2	2.82	7.0	10.57	.6	1.03		
FORT NELSON Capital Fiscal					14.9 [1.4	38.16 3.57]	3.7 [2.8	9.39 7.10]
MACKENZIE Capital Fiscal	9.9 .8	33.43 2.86	9.4 1.2	40.90 5.11	4.4 2.0	17.94 8.03	8.4 1.9	39.12 8.94
THOMPSON	10.1	17.50	13.2	27.55	9.4	23.63		
THE PAS Capital Fiscal	2.9	5.61	8.5 [1.5	18.00 3.07]	3.1 [1.0	8.26 2.54]		
CAMROSE			1.9	4.27	3.8	8.83		
WETASKIWIN			4.3	9.36	3.8	8.94		
CHURCHILL	2.7	5.35	6.1	18.34	1.5	5.26		

See Figure 5-15/16 on previous page

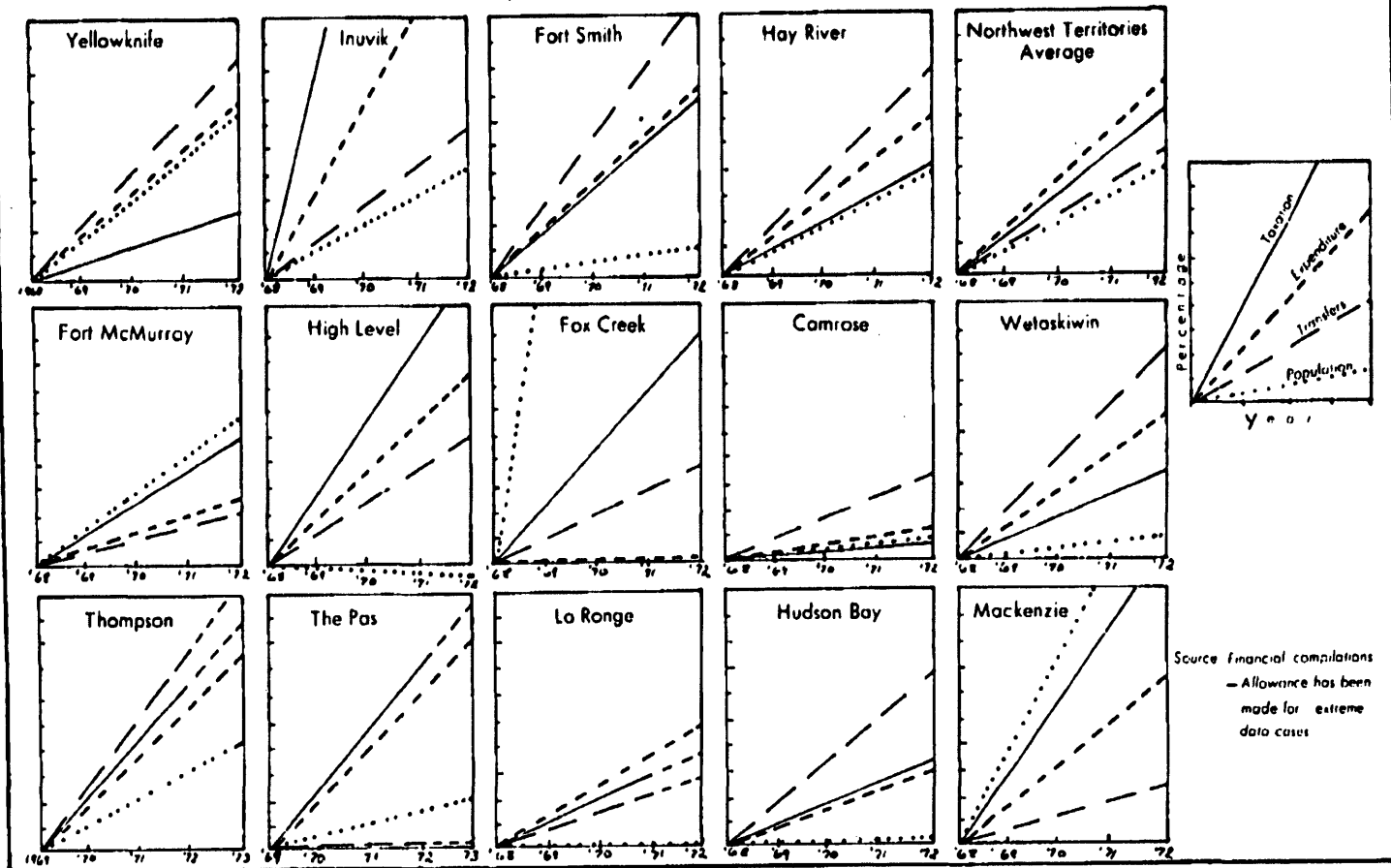
TABLE 5-17
POPULATIONS USED IN PER CAPITA CALCULATIONS

<u>POPULATION CHART:</u>						
	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
N.W.T.						
Yellowknife	5,000	5,900	6,500	7,100	7,400	
Hay River	2,500	2,700	2,900	3,200	3,500	4,000
Fort Smith	2,300	2,400	2,500	2,500	2,500	
Inuvik	2,500	2,700	3,080	3,360	3,500	3,850
Pine Point				1,200		
Fort Simpson				1,000		
ALBERTA:						
High Level	2,077	2,004	2,004	2,004	1,621	1,600
Fox Creek	256	621	876	1,253	1,314	
Fort McMurray	5,000	5,900	6,500	7,000	7,600	
SASKATCHEWAN						
Hudson Bay	1,950	1,950	2,000	1,955	2,028	
La Ronge		1,100	1,100	1,100	1,100	
BRITISH COLUMBIA						
Fort Nelson					2,500	2,750
Mackenzie			2,000	2,300	3,300	4,300
MANITOBA						
Thompson		15,000	17,000	18,953	19,001	
The Pas		5,900	6,100	6,800	7,000	7,200
OTHERS STUDIED						
Camrose			8,892	8,903	8,988	
Wetaskiwin			6,456	6,586	6,510	
Churchill		3,500	2,000	1,604	1,604	
Fort Saskatchewan			5,302	5,734	6,328	

SOURCE:

Interviews with municipal officials, survey of relevant documents and official statistics.

Figure 5-17 APPROXIMATE RATES OF CHANGE IN POPULATION AND PER CAPITA TOTAL TAXATION, TOTAL TRANSFERS AND EXPENDITURES



	Taxation	Grant-in-Lieu	Taxation & Grant-in-Lieu	Sales of Services	Other Revenue from Sources	Unconditional Transfers	Conditional Transfers	Total Cond. & Uncond. Transfers	Total Revenue
YELLOKNIFE									
1968	99.76	36.75	136.51	12.11	15.55	21.43	6.57	28.00	192.18
1969	105.95	33.07	139.02	12.92	27.99	25.18	7.22	32.40	212.33
1970	119.78	35.55	155.33	14.54	32.36	28.92	15.26	44.18	246.41
1971	123.66	34.43	158.09	30.79	86.89	33.08	14.11	47.19	322.96
1972	140.93	41.95	182.88	34.77	68.36	32.61	14.73	47.34	333.35
HAY RIVER									
1968	62.45	15.27	77.72	24.37	22.51	20.57	9.32	29.89	154.44
1969	67.00	16.40	83.40	27.24	21.09	22.48	11.65	31.13	163.86
1970	63.63	18.45	82.08	39.22	43.07	31.27	13.17	44.44	208.82
1971	93.62	16.17	109.79	44.21	48.52	29.78	17.74	47.52	250.03
1972	88.08	21.49	113.72	43.82	26.55	36.64	13.27	49.91	229.86
FORT SMITH									
1968	32.32	23.97	56.29	39.48	2.13	20.51	13.83	34.34	132.23
1969	36.48	30.14	66.62	45.59	3.93	19.66	23.32	42.98	159.13
1970	42.30	26.75	69.05	42.41	6.20	18.87	32.96	51.83	169.50
1971	40.78	38.70	79.48	41.25	10.61	24.59	34.86	59.45	190.79
1972	53.06	48.64	101.70	46.28	14.53	22.47	53.73	76.20	238.71
INUUVIK									
1968	7.50	18.32	25.82	5.18	3.67	19.00	21.76	40.76	73.43
1969	15.25	38.87	54.12	1.59	4.56	17.42	9.25	26.67	86.94
1970	19.43	38.53	57.96	4.71	6.48	17.71	12.12	29.83	98.99
1971	29.65	41.17	70.82	2.84	29.74	19.19	12.44	31.63	133.03
1972	40.31	46.85	87.16	9.31	58.16	27.34	18.19	45.53	200.17
FORT SIMPSON									
1971-72	6.08	38.94	45.02	3.64	7.91	26.95	31.09	58.04	114.60
PINE POINT									
1971-72	138.91	97.02	235.93	21.23	6.49	28.16	14.78	42.94	306.58
N.W.T. AVERAGE (Yellowknife, Hay River, Fort Smith and Inuvik)									
1968	50.51	23.58	74.09	20.27	10.97	20.38	12.87	33.25	138.57
1969	56.17	29.52	85.69	21.84	14.27	21.19	12.86	34.05	156.07
1970	61.29	29.82	91.11	23.22	22.03	24.39	18.38	42.57	180.93
1971	71.93	32.62	104.55	29.77	43.94	26.66	19.79	46.45	224.78
1972	80.59	39.73	121.36	33.54	41.90	29.77	24.98	54.75	250.52

Source: Municipal Financial Statements (See Volume II of This Report for Details)

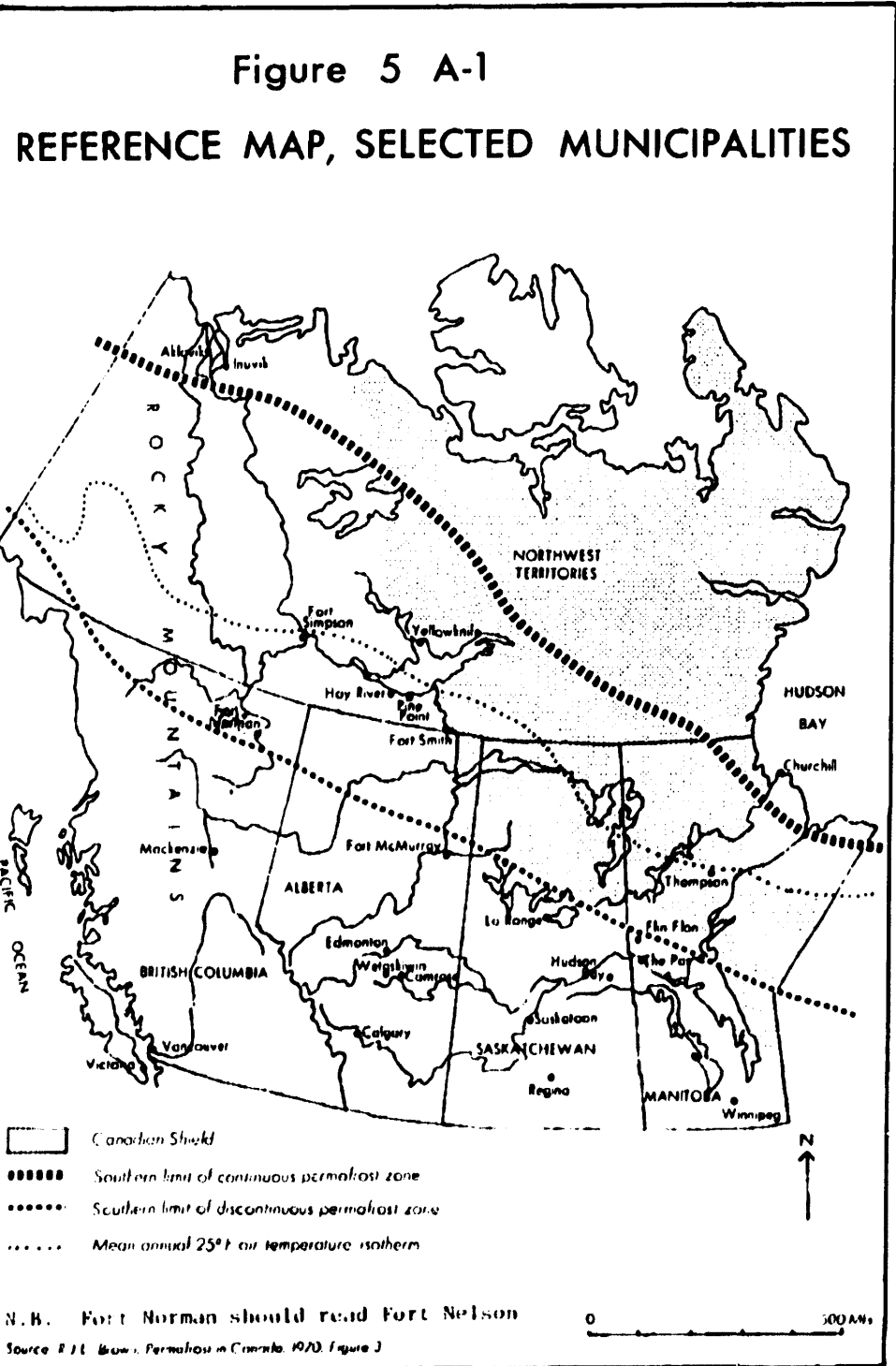


TABLE 5A-2

N.W.T. EXPENDITURES (PER CAPITA)

	Gen. Gov't.	Protective Services	Transportation Services	Environmental Health	Health & Social Welfare	Environmental Development	Education	Rec. & Community Services	Debt Charges	Capital Expend.	Transf. to Reserves Other Funds	Total Expend.
YELLOWKNIFE												
1968	25.27	7.46	15.83	47.12	2.30	5.17	71.55	6.66	13.47	15.21	-	210.45
1969	25.02	9.78	23.58	51.52	2.89	3.22	74.11	10.58	12.72	18.11	-	231.55
1970	23.94	14.85	23.32	46.68	3.43	10.80	77.61	18.72	16.50	2.87	-	238.71
1971	28.55	18.05	24.37	59.71	2.92	49.06	94.59	18.42	25.54	8.40	-	328.42
1972	21.79	22.06	25.95	59.41	2.89	29.95	86.97	20.94	34.39	7.93	14.55	336.82
HAY RIVER												
1968	28.99	3.17	27.58	25.20	2.98	1.56	12.61	10.06	21.00	25.41	-	158.57
1969	26.55	3.87	23.49	28.16	2.73	2.81	14.14	12.70	22.31	34.61	-	171.36
1970	28.98	5.03	29.66	32.38	2.20	7.39	15.10	26.19	23.04	68.28	-	238.26
1971	23.28	6.21	28.19	29.92	1.83	1.98	22.78	34.91	48.76	16.29	-	214.14
1972	25.77	5.39	27.33	29.71	1.75	2.17	26.82	41.79	28.07	34.08	-	222.89
FORT SMITH												
1968	24.73	1.92	30.40	29.73	0.24	1.24	8.67	14.54	4.29	20.25	-	136.02
1969	18.55	1.63	27.89	32.07	0.30	0.42	10.68	26.10	6.67	33.96	-	158.28
1970	24.06	1.78	53.02	40.15	0.29	2.56	11.04	22.28	5.68	12.59	-	172.46
1971	30.79	5.64	45.59	41.70	0.28	3.52	12.82	25.45	9.71	61.73	2.80	240.04
1972	33.44	6.84	32.21	46.29	-	19.66	16.02	27.12	19.65	25.43	-	226.66
INUVIK												
1968	13.62	6.45	17.95	13.02	-	4.85	3.44	4.49	-	30.38	-	74.20
1969	12.73	7.41	9.67	10.10	-	7.82	4.74	5.43	1.76	18.50	-	78.17
1970	15.34	10.14	17.12	12.31	-	7.45	6.22	7.60	0.65	22.88	-	99.69
1971	17.32	12.56	34.79	12.93	-	21.89	9.08	12.71	0.53	10.91	-	132.71
1972	21.41	8.39	27.58	14.79	-	36.07	14.57	20.06	2.49	35.98	17.34	198.68
FORT SIMPSON												
1971-72	31.17	5.41	54.86	15.63	0.25	15.59	-	3.01	-	2.34	-	128.25
PINE POINT												
1971-72	20.78	4.03	21.61	93.63	-	2.35	30.76	82.40	-	23.86	-	280.73
N.W.T. AVERAGE (Yellowknife, Hay River, Fort Smith and Inuvik)												
1968	23.15	4.75	22.94	28.77	1.38	3.21	24.17	8.79	9.69	17.81	-	144.81
1969	20.71	5.67	21.16	30.46	1.48	3.57	25.92	13.70	10.86	26.30	-	159.84
1970	23.08	7.95	30.78	32.88	1.48	7.05	27.38	18.70	11.47	15.91	-	187.28
1971	24.99	10.62	33.24	36.07	1.39	19.11	34.82	22.87	21.14	24.33	-	228.83
1972	28.10	10.67	28.27	37.55	1.16	21.96	36.10	27.48	21.15	25.86	-	246.26

Source: Municipal Financial Statements (See Volume II of This Report for Details)

TABLE 5B-2

BRITISH COLUMBIA 1971 EXPENDITURE PER CAPITA

Pop.	Municipality/Status	Gen. Admin.	Total Gen. Gov't.	Justice and/or Police	Fire	Total Prot. Serv.	Trans. Serv.	Envir. Health Serv.	Health	Social Welfare	Health & Wel. Total	Envir. Dev. Serv.	Rec. & Cult. Serv.	Educ.	Debt Chgs.	Total Expend.	Taxable Assessed Values
61,761	Victoria City	15	26	37	21	62	24	27	13	70	83	3	36	90	21	396	3,246
42,835	New Westmin. City	11	15	28	25	56	16	26	6	71	78	10	23	77	20	347	2,956
33,101	Prince George City	10	12	20	9	32	34	19	2	53	55	4	17	128	27	391	3,543
26,168	Kamloops City	15	19	21	13	47	22	19	2	53	55	5	24	80	34	341	6,124
18,146	Penticton City	20	24	14	13	28	29	20	1	38	38	-	30	76	31	310	6,415
12,000	Cranbrook City	12	21	15	11	28	32	21	1	31	32	4	12	62	18	276	2,104
11,803	Kitimat District	16	25	15	18	36	54	19	2	14	16	6	20	201	76	559	6,443
10,778	Port Moody City	13	19	16	10	28	25	22	-	46	46	1	13	116	13	355	2,986
8,264	Ft. St. John Town	11	14	1	5	7	30	23	1	56	57	2	14	53	49	300	2,251
7,152	Gourtenay City	10	13	11	5	19	21	27	2	28	30	-	15	72	21	250	2,556
6,252	Quesnel Town	14	21	-	4	6	30	32	1	60	61	-	21	100	39	344	3,042
5,289	Merritt Town	8	13	-	3	8	16	20	1	49	50	-	16	39	14	199	1,671
3,864	Smithers Town	16	24	-	4	6	22	18	1	57	58	-	7	71	35	299	2,261
3,664	Ladysmith Town	15	17	1	4	6	60	14	1	50	50	20	9	41	14	258	1,704
3,153	Hope Town	10	14	-	2	4	18	13	-	52	52	4	11	59	2	247	2,359
2,771	Pitt Meadows Dis.	21	26	-	1	2	22	16	-	-	-	11	4	74	3	255	2,612
2,601	Princeton Village	8	17	-	5	6	19	22	1	-	1	-	3	49	23	166	1,832
2,450	FT. NELSON (72) Vil.	22	28	-	3	4	16	39	-	2	2	-	19	69	29	264	1,835
2,332	MACKENZIE District	39	49	-	11	19	69	25	1	-	1	3	19	180	43	508	4,157
2,132	Warfield Village	11	14	-	4	4	22	20	-	-	-	1	13	49	23	164	1,872
1,916	Ashcroft Village	11	13	-	4	5	14	25	-	-	-	-	6	32	15	149	1,308
1,718	Cumberland Village	16	19	-	5	7	17	32	1	-	1	1	16	36	22	199	1,353
1,653	Vanderhoof Village	15	23	-	6	6	45	24	-	-	-	-	25	62	29	297	1,887
1,351	Tahsis Village	32	40	-	-	1	40	21	-	-	-	4	1	111	4	270	2,754
1,292	Fraser Lake Village	18	27	-	3	4	16	14	-	-	-	-	46	59	13	212	1,807
1,260	Chetwynd Village	12	16	-	5	5	33	24	-	-	-	2	9	80	23	276	2,133
1,365,925	B.C. AVERAGE (excluding Vancouver)	12	17	16	11	29	23	18	2	40	42	2	16	91	22	307	3,519
1,792,181	B.C. AVERAGE (including Vancouver)	11	16	20	14	37	21	18	3	51	54	2	17	93	26	329	4,536

N.B. Fort Nelson Data is for 1972, rest refers to 1971

Source: Municipal Statistics, 1971, 1972. Department of Municipal Affairs, Province of British Columbia

TABLE SC-2

ALBERTA 1971 EXPENDITURE PER CAPITA

Pop.	Municipality/Status	Gen. Admin.	Total Gen. Gov't.	Justice and/or Police	Fire	Total Prot. Serv.	Trans. Serv.	Envir. Health Serv.	Health	Social Welfare	Health & Wel. Total	Envir. Dev. Serv.	Rec. & Cult. Serv.	Educ.	Debt Chgs.	Total Expend.	Taxable Assessed Values
40,856	Lethbridge City		14			45	13	26	12	4	16		26	86	43	307	2,434
29,907	Red Deer City		18			46	18	24	9	5	14		21	75	68	299	2,361
12,054	Grande Prairie City		19			26	19	55	23	7	30		18	66	62	327	1,964
8,903	CAMROSE City		20			22	33	12	4	2	6		23	63	33	221	2,351
6,681	FT. McMURRAY Town		18			23	15	30	1	5	6		21	52	51	240	1,365
6,586	WETASKIWIN City		16			21	13	11	11	3	14		20	61	37	212	1,693
5,384	Peace River Town		12			22	21	28	8	4	12		19	70	54	263	2,045
4,694	Taber Town		12			24	19	36	23	2	25		26	87	59	318	2,284
4,690	Hinton Town		20			20	23	19	5	2	7		18	113	31	321	2,987
4,051	Edson Town		15			22	25	21	4	-	4		18	56	30	248	1,562
3,714	Drayton Valley Town		13			18	20	25	10	3	13		25	40	53	232	1,302
3,350	Claresholm Town		15			16	19	23	5	0.5	6		20	43	42	204	1,309
3,337	Pincher Creek Town		16			21	16	35	4	1	5		19	46	40	232	1,558
3,114	Whitecourt Town		16			25	15	22	8	-	8		13	45	27	215	1,718
2,621	High River Town		15			18	21	14	8	2	10		15	54	13	230	1,821
2,436	Innisfail Town		15			22	26	29	10	0.5	12		22	65	31	250	1,965
2,004	HIGH LEVEL Town		17			21	17	23	3	2	5		1	35	14	213	954
1,612	Vulcan Town		19			17	26	19	4	0.5	6		27	57	40	232	1,829
1,322	Manning Town		17			8	26	42	9	-	9		18	44	41	251	1,274
1,253	FOX CREEK Town		18			12	26	24	4	-	4		6	22	37	296	1,576
1,220	Strathmore Town		20			15	39	14	3	2	5		12	44	47	234	1,337
1,102	Coronation Town		17			7	15	23	3	0.5	5		14	58	34	191	1,361
	ALBERTA AVERAGE ¹ (excluding Edmonton & Calgary)		17			12	19	27	5	3	8		20	67	38	259	1,941
	ALBERTA AVERAGE ¹ (including Edmonton & Calgary)		15			44	13	30	25	10	35		22	85	45	292	2,217

¹ includes town and cities only

Source: 1971 Municipal Statistics. Department of Municipal Affairs, Province of Alberta

TABLE 3D-2

SASKATCHEWAN 1971 EXPENDITURE PER CAPITA

Pop.	Municipality/Status	Gen. Admin.	Total Gen. Gov't.	Justice and/or Police	Fire	Total Prot. Serv.	Trans. Serv.	Envir. Health Serv.	Health	Social Welfare	Health & Wel. Total	Envir. Dev. Serv.	Rec. & Cult. Serv.	Educ.	Debt Chgs.	Total Expend.	Taxable Assessed Values
126,449	Saskatoon City		16			41	16	16			5	1	25	109	38	273	2,318
31,854	Moose Jaw City		12			30	11	20			44	1	14	87	32	273	1,206
28,464	Prince Albert City		18			31	17	16			80	-	13	93	16	317	1,506
15,415	Swift Current City		12			29	18	19			1	-	16	101	26	255	1,737
13,430	Yorkton City		13			20	15	19			-	-	6	112	35	239	2,110
12,968	N'Battleford City		16			28	15	20			1	-	17	92	26	250	1,700
8,815	Weyburn City		33			20	17	26			2	1	17	91	31	251	1,678
5,375	Melville City		22			15	18	18			7	1	9	73	34	218	1,538
4,057	Nipawin Town		14			13	27	23			-	-	10	77	17	233	1,729
3,881	Humbolt Town		14			13	25	24			1	1	12	75	27	228	1,734
3,451	Kindersley Town		15			17	44	27			1	-	15	81	45	277	2,025
3,435	Meadow Lake Town		10			15	19	10			-	-	5	71	26	178	1,366
2,896	Esterhazy Town		16			14	17	21			2	1	7	72	65	230	1,866
2,783	Kamsack Town		19			19	31	17			1	2	5	69	58	231	1,609
2,675	Assiniboia Town		17			12	22	28			1	2	18	81	48	262	1,929
2,607	Biggar Town		11			15	18	19			1	-	13	64	17	184	1,477
2,244	Shaunavon Town		17			14	20	10			-	-	9	84	37	229	1,928
1,971	HUDSON BAY Town		17			18	19	19			-	-	15	76	26	220	1,364
1,767	Outlook Town		19			14	15	16			-	-	12	64	43	216	1,661
1,428	Gravelbourg Town		14			13	34	38			-	1	5	65	24	198	1,448
1,048	Shellbrook Town		17			13	30	20			-	-	3	64	26	207	1,473
906	LA RONGE Village		16			19	21	34			-	-	7	48	19	185	1,100
	SASKATCHEWAN AVERAGE		15			8	56	9			6	1	5	82	18	241	2,084
	Rural & Urban Municipalities (excluding Regina & Saskatoon)																
	SASKATCHEWAN AVERAGE		17			15	19	16			11	0.5	9	66	29	212	1,474
	Urban Municipalities (excluding Regina & Saskatoon)																
	SASKATCHEWAN AVERAGE		14			18	46	12			1	1	8	85	25	231	2,035
	Rural & Urban Municipalities (including Regina & Saskatoon)																
	SASKATCHEWAN AVERAGE		14			28	19	20			9	1	12	80	36	246	1,709
	Urban Municipalities (including Regina & Saskatoon)																

Source: Annual Report of the Department of Municipal Affairs (1971-72), Province of Saskatchewan

TABLE 5E-2

MANITOBA 1971 EXPENDITURE PER CAPITA

Pop.	Municipality/Status	Gen. Admin.	Total Gen. Gov't.	Justice and/or Police	Fire	Total Prot. Serv.	Trans. Serv.	Envir. Health Serv.	Health	Social Welfare	Health & Wel. Total	Envir. Dev. Serv.	Rec. & Cult. Serv.	Educ.	Debt Chgs.	Total Expend.	Taxable Assessed Values	
31,150	Brandon	City	17	37	15	13	31	20	24	2	7	9	8	16	59	44	266	1,515
19,001	THOMPSON	City	11	14	20	7	29	20	13	2	-	2	5	15	78	-	2.7	1,482
12,950	Portage	City	13	17	12	6	19	18	29	4	3	7	2	2	43	45	208	1,418
9,331	Selkirk	Town	13	17	16	4	21	21	24	2	6	8	1	1	53	45	225	1,297
8,891	Dauphin	Town	10	12	9	4	14	15	24	2	-	2	2	7	53	24	170	1,506
8,873	Flin Flon	City	7	11	14	7	22	44	32	2	8	10	3	5	76	9	218	1,235
6,062	THE PAS	Town	7	10	21	7	30	29	33	2	2	4	3	12	64	25	217	1,280
5,197	Steinbach	Town	11	17	8	2	11	28	16	1	.5	1.5	1	7	57	29	298	1,710
3,522	Swan River	Town	14	17	11	3	14	17	22	3	3	6	2	10	63	39	221	1,781
3,215	Neepawa	Town	13	18	10	5	16	21	31	6	3	9	1	6	58	28	290	1,725
3,012	Lynn Lake	LGD	19	22	9	1	-	26	28	1	-	1	.5	2	56	1	213	865
2,983	Winkler	Town	12	16	9	3	12	28	29	4	3	7	4	10	77	33	216	1,947
2,823	Virden	Town	11	19	12	3	15	20	16	2	1	3	2	16	85	29	233	1,781
2,621	Minnedosa	Town	14	20	13	3	16	27	45	4	1	5	1	6	59	46	276	1,511
2,236	Beausejour	Town	13	18	11	5	16	20	23	1	1	2	1	7	60	37	232	1,931
2,041	Gimli	Town	10	16	12	2	15	11	18	5	2	7	1	4	53	22	156	1,731
2,030	Carman	Town	14	22	12	3	17	20	32	3	2	5	2	14	50	43	228	1,873
1,604	CHURCHILL	LGD	32	36	5	5	9	38	50	-	9	9	1	2	140	1	328	861
1,583	Stonewall	Town	12	15	10	3	13	22	7	3	2	5	1	12	43	5	126	1,374
1,526	Russell	Town	14	18	10	1	12	32	26	3	1	4	3	3	68	26	217	2,036
1,506	Boissevain	Town	16	22	6	4	11	22	37	3	1	4	1	13	60	58	251	1,911
1,399	Morris	Town	15	20	6	2	8	40	27	1	4	5	3	8	46	37	223	1,507
	MANITOBA AVERAGE		13	19	6	3	9	35	13	2	2	4	4	7	66	14	192	1,900
	(excluding Winnipeg and suburbs)		11	16	13	11	25	26	18	3	6	9	5	13	81	28	248	2,113
	MANITOBA AVERAGE		11	16	13	11	25	26	18	3	6	9	5	13	81	28	248	2,113
	(including Winnipeg and suburbs)																	

Source: 1971 Statistical Information Respecting the Municipalities of the Province of Manitoba

Status: LGD - Local Government District

PART III - CHAPTER 6

A. NORTHERN COST DIFFERENTIALS - MISCELLANEOUS ASPECTS

It is generally conceded that the provision of any service, commodity or facility to locations outside the Canadian ecumene will, in the majority of cases, require a greater level of financial input (i.e., higher costs). It may be anticipated that this will apply equally well to the provision of municipal services and will be reflected, in part, in any index of financial output such as per capita expenditure. The latter index, which is used extensively in this study, is a composite reflecting the play of many other influences in addition to that of higher costs. The most notable additional influence would be the qualitative or quantitative level of municipal service under consideration.

It is a partial objective of this chapter to identify, if only in somewhat crude fashion, the relative importance of higher costs and service level in the make-up of the indices, as they exist for various municipalities in various years. As an assist in this analysis, the following survey is presented. The survey focusses on what may be considered as proxies or surrogates for municipal services. These are: food and grocery costs; northern allowances; utility costs; house construction costs; and land servicing costs. Cost differentials for these items among locations in northern Canada and major southern urban centres are described and discussed.

Food and Groceries: Data is available from recent reports containing

price statistics for the Fort Smith Region, N.W.T., and Northern Manitoba. The N.W.T. data are taken from a progress report based on a major project, which is due to be completed in the near future. The Manitoba data is part of a periodic survey of consumer food prices which began recently.

The N.W.T. study was conducted during 1971 and involved pricing of a selected list of grocery items in stores located in northern and southern Canada. The relative average cost of this basket of goods was referenced to a base obtained for a Canada Safeway store in Edmonton during January 1971. The remainder of the pricing was conducted between May and August 1971. The indices for Whitehorse, Inuvik, Aklavik and Tuktoyaktuk are less reliable in that pricing was only done on one occasion in these locations during the course of the study.

The results of the N.W.T. study are presented in Table 6A-1. Regarding the tax-based municipalities, food costs tend to be about 20 - 30% above those in the large southern centres, except in the case of Inuvik where the percentage rises to almost 50%. Within these municipalities, major variations from the norm exist such as for the convenience store in Yellowknife and the heavily subsidized and exclusive Armed Forces store in Inuvik. The smaller communities in the North tend to exhibit average food costs of about 10 - 15% greater than their larger northern neighbours.

The major component in these differentials is transportation costs, and it is probable that they would only apply with strong force to municipal services if transportation was the major cost component in the

TABLE 6A-1

RELATIVE FOOD COSTS: MAY - AUGUST 1971

LOCATION	REMARKS	INDEX
EDMONTON	Canada Safeway-Reference Base. Jan.71	100
	Canada Safeway	101.2
	Woodwards Ltd.	102.8
	L-Mart Discount	98.9
CALGARY	Canada Safeway	104.0
	Woodwards Ltd.	105.5
	L-Mart Discount	98.8
VANCOUVER	Canada Safeway	105.3
	Woodwards Ltd.	105.7
HAY RIVER	New Town - large outlet	123.0
	New Town - large outlet	123.2
	Old Town - small outlet	129.1
	West Channel - small outlet	127.2
PINE POINT		124.5
FORT SMITH		123.7
		120.4
YELLOWKNIFE	New Town - supermarket	121.7
	New Town - supermarket	123.6
	Old Town - small outlet	132.9
	New Town - convenience store	144.0
FORT SIMPSON		130.0
		130.2
		132.7
FORT RAE		133.5
		144.5
FORT PROVIDENCE		127.4
		138.1
FORT RESOLUTION		136.5
		140.6
SNOWDRIFT		143.2
WHITEHORSE		131.2
		134.6
INUVIK		147.8
		156.9
		145.0
	Can. Ex. Store (Canadian Forces)	101.6
AKLAVIK		163.2
		175.7
TUKTOYARTUK		142.1
		164.1

Source: A Study of Food Costs and Availability, Fort Smith Region, N.W.T. Progress Report March 1972. School of Household Economics and Dept. of Agricultural Economics, Univ. of Alberta; Northern Region, Medical Services Branch, Dept. of National Health and Welfare, pp. 11,13

delivery of these services. Usually municipal services comprise a mix of costs and only rarely is transportation a relatively important direct cost component.

Further evidence of the strong influence of transportation factors in the spatial variation of food costs may be derived from the Manitoba data. This data is summarized in Table 6A-2. The cost indices are weighted according to the relative importance of different sub-groups and related to a Winnipeg base of 100. Thompson, with the lowest index outside Winnipeg, has a highway in addition to rail and air transportation connections with the south. Thompson also has a population of over 20,000. Oxford House is a small isolated community of about 800 people. It has only air connections to the outside and had the greatest average costs of the communities studied. Churchill benefits from a railway connection as well as regular air service to the south.

TABLE 6A-2
RELATIVE FOOD PRICE INDEXES: JANUARY 1974

Winnipeg	100.00	God's Lake Narrows	149.90
Churchill	127.09	Manigotogan	120.75
Flin Flon	116.70	Meadow Portage	109.38
Leaf Rapids	124.30	Norway House	144.76
Lynn Lake	125.04	Oxford House	152.06
Snow Lake	118.98	Poplar River	136.16
The Pas	114.31	Pikwitonei	122.94
Thompson	109.13	Split Lake	144.75
Camperville	121.11	Wabowden	117.64
Cross Lake	133.15	Waterhen	111.71

Source: Periodic Survey of Consumer Food Prices for Selected Communities in Northern Manitoba, Jan. 1974.
Manitoba Bureau of Statistics, Winnipeg.

Utility Costs: Utility costs are much more complex in their make-up by comparison with food costs. Utilities normally comprise water supply, heating fuel (gas or oil) and electric power. The charges levied for each sub-category rarely reflect all real costs. Each is in itself a composite resulting from a variety of charging techniques. Many costs to the user may be hidden in special taxes, lot costs, frontage costs, etc., in addition to the actual consumption charges. The availability of subsidies, direct or indirect, may or may not be reflected in consumption patterns. These subsidies, which are absent for food costs, can also hide the true extent of the influence of environmental and locational factors. Despite their considerable ambiguity, utility costs affect many aspects of the operation of municipalities directly or indirectly. It is possible that the differentials present for this category may closely reflect the cost differentials present in the provision of certain municipal services.

Data on utility costs have been obtained from C.M.H.C. and the Treasury Board. The data were derived mainly from the actual experiences in housing operated by the federal government. The costs refer to actual costs before the application of indirect subsidies such as housing and utility allowances to the occupant (who is normally a federal government employee). In some cases, private households were also included in the survey. The data were checked for sampling consistency against records available from the local operators of the utilities.

Composite data for northern and southern communities, in some cases for two house sizes, are presented in Table 6A-3. The data

TABLE 6A-3

ANNUAL UTILITY BILLS - SELECTED CANADIAN LOCATIONS

	1973		1968	
	Small home *	Large home **		Small home *
Edmonton	\$216	\$288	Edmonton	\$200 (estimate)
Esquimalt (B.C.)	-	\$432	Churchill	\$900
Ottawa	\$372	\$504	Fort Nelson	\$728
Thompson	\$360	\$480	The Pas	\$579
Yellowknife	\$660	\$864	Fort Smith	\$1040
Fort Simpson	\$1032	\$1296	Pine Point	\$1010
Inuvik	\$1032	\$1332		

* Small home: 776 sq. ft. L.F.A.; 4 rooms/2 bedrooms/detached bungalow with basement

** Large home: 1264 sq. ft. L.F.A.; 7 rooms/4 bedrooms/detached 2-storey home with basement

Source: R. H. Jenkins, Treasury Board, Ottawa, February 14, 1974 (reporting results from CMHC study commissioned by the Treasury Board).

indicate substantial cost differences between N.W.T. locations and Edmonton and Ottawa. Edmonton is not a particularly useful base for utility cost differentials since it ranks the lowest of all major urban centres in Canada in terms of heating fuel costs (Stats. Canada Service Bulletin, Vol. 1, No. 3. Catalogue 62-005) (Thompson has relatively low values primarily because no user charges are levied for water supply). After making some allowance for Edmonton's exceptionally low costs, it may be generalized that utility costs range from a minimum of about 100% to a maximum of about 350% greater than the average costs in major southern urban centres. The greatest differences are found in the small northern centres, and it may be anticipated that the current cost differentials for the larger N.W.T. municipalities will more closely approach the values for Yellowknife.

A more detailed breakdown of the annual utility costs for some N.W.T. communities and Edmonton is shown in Table 6A-4. Except for Yellowknife, flat water rates are charged for domestic uses in the N.W.T. communities. There is surprisingly little variation in the total annual utility costs for Inuvik, Frobisher Bay and Fort Simpson. In each of these communities N.C.P.C. is the utility operator. This government agency is able to spread its costs over all its operations across Canada, and artificially evens out national cost differentials.

The major differences between Edmonton and the northern communities lie in the costs for heating and electricity, reflecting the abundance of cheap oil and gas energy sources.

Northern Allowances: Another source of cost differentials between

TABLE 6A-4

TYPICAL ANNUAL UTILITY COSTS

- INUVIK, FORT SIMPSON, YELLOWKNIFE, FROBISHER BAY, EDMONTON

	INUVIK		FORT SIMPSON		YELLOWKNIFE		FROBISHER BAY		EDMONTON	
	Sm [*]	L ^{**}	Sm [*]	L ^{**}	Sm [*]	L ^{**}	Sm [*]	L ^{**}	Sm [*]	L ^{**}
Water Supply	120	120	211	211	110	140	60	60	84	120
Heating Fuel	480	650	335	435	370	510	350	460	66	90
Electricity	440	570	490	640	180	220	600	840	54	75
TOTAL	1040	1340	1036	1306	660	870	1010	1360	204	285

* Small home ** Large home: See foot of Table 6A-3 for description of each.

N.B. Edmonton data refer to 1972; the remainder refers to 1973

Source: D. Wood, C.M.H.C., Edmonton, February 28, 1974.

northern and southern Canada is the federal system of isolated post allowances. The related indices cover food and supplementary goods and services. They reflect to some extent the individual consumption and purchasing habits of groups of Canadian Government employees. To a large extent the pattern of these indices is similar to that found for food cost differences. As was indicated earlier, this feature may make them of limited application in the realm of municipal servicing. Index ranges for some communities considered in this study are presented in Table 6A-5.

A Canadian geographer and Territorial Councillor, Dr. L.E. Hamelin, has attempted to apply his nordic index to the task of systematizing northern allowances. His index is a composite of criteria recognizing physical, demographic, economic and accessibility factors. The classes for his various criteria and the corresponding value in terms of vapos (measures of "northernness") are indicated in Table 6A-6. Using current data, Hamelin has mapped the pattern resulting from the application of his scheme to locations scattered all over the Canadian North (Figure 6A-1). Although the specific purpose portrayed is to indicate percentage allowances of an agreed base salary/wage supplement, the pattern could be utilized as a guide to cost differentials affecting municipal services. A few rough calculations indicates that the percentage cost differentials between N.W.T. communities and Edmonton or Winnipeg are of similar orders of magnitude to those determined for utility costs. Further similarities are encountered in the following discussion of land servicing cost differentials.

TABLE 6A-5

ISOLATED POST INDICES

LOCATION	SURVEY DATE	BASE CITY (100)	INDEX LEVEL
N.W.T. Fort Simpson	May/June 1971	Edmonton	120-129.9
Fort Simpson	March 1969	Edmonton	120-129.9
Inuvik	May/June 1971	Edmonton	130-139.9
Inuvik	March 1969	Edmonton	130-139.9
Yellowknife	May/June 1971	Edmonton	120-129.9
Yellowknife	March 1969	Edmonton	120-129.9
Hay River	March 1969	Edmonton	110-119.9
Fort Smith	May/June 1971	Edmonton	110-119.9
Fort Nelson, B.C.	October 1969	Vancouver	110-119.9
Fort McMurray, Alberta	March 1969	Edmonton	100-109.9
La Ronge	March 1972	Winnipeg	110-119.9
Thompson	November 1967	Winnipeg	100-109.9
Churchill	March 1973	Winnipeg	110-119.9

Source: Personal Communication C. Campbell, Statistics Canada, Ottawa, January 1974.

TABLE 6A-6

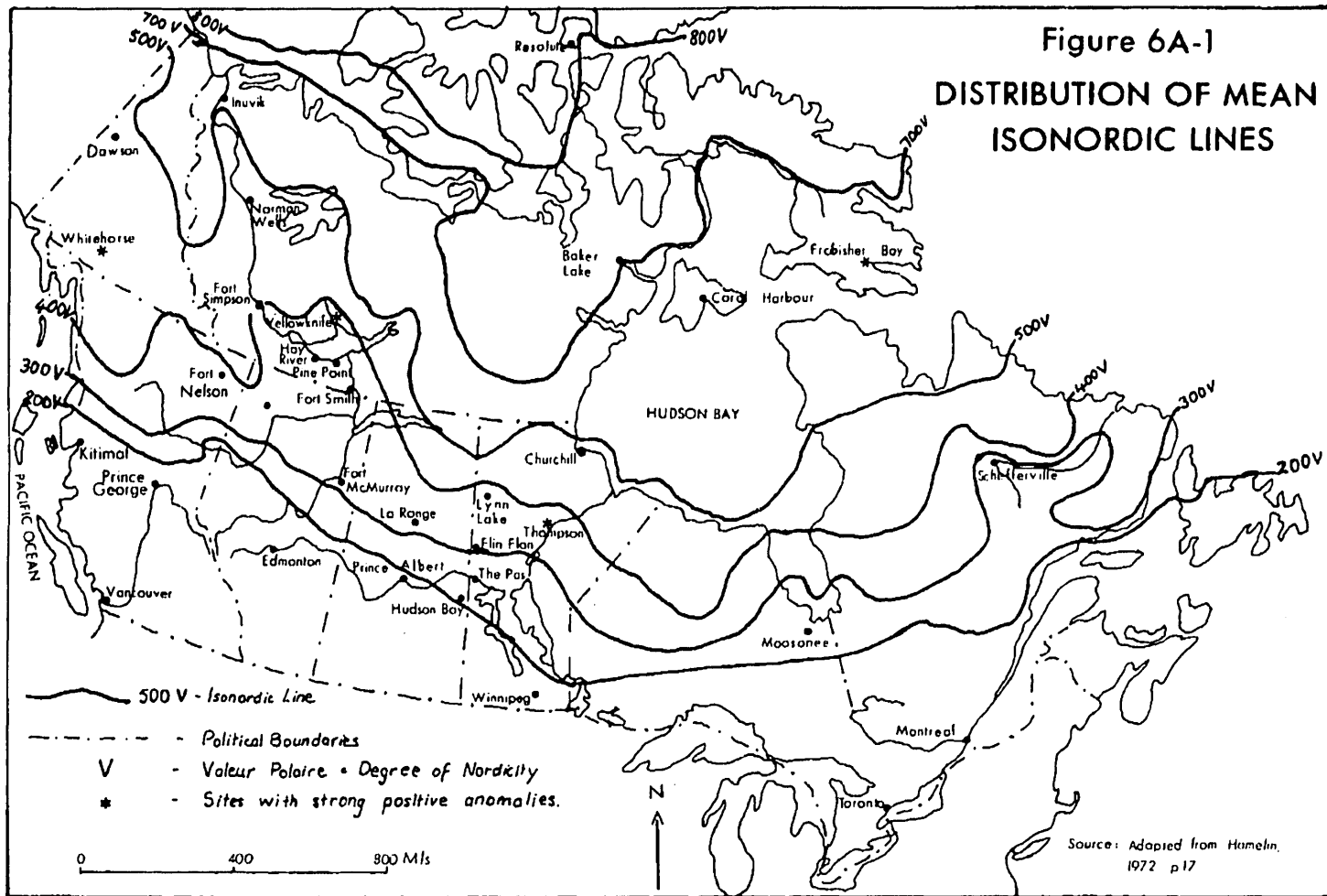
TABLE FOR CALCULATING NORDICITY INDEX

Criteria	Classes	'Valeurs polaires' or VAPO	Criteria	Classes	'Valeurs polaires' or VAPO
1. Latitude	Up to 90°	100	6. Vegetation cover	Rocky desert	100
	80°	77		Sparse tundra	80
	70°	55		Dense, shrubby tundra	60
	60°	33		Open woodland (subarctic parkland)	40
	30°	11		Heavy (coniferous) forest	0
	45°	0			
2. Summer heat	0 days above 42°F (5.6°C)	100	7. Accessibility other than by air (heavy transport)	No service	100
	40 days above 42°F (5.6°C)	80		Seasonal service: once per year	80
	60 days above 42°F (5.6°C)	70		Seasonal service: for two months	60
	80 days above 42°F (5.6°C)	60		Seasonal service: for 6 months, or (w/o "seasons")	40
	100 days above 42°F (5.6°C)	45		Year-round service: by one means	20
	120 days above 42°F (5.6°C)	30	Year-round service: by more than one means	0	
	135 days above 42°F (5.6°C)	20			
>150 days above 42°F (5.6°C)	0				
3. Annual cold	>12,000 degree days below 32°F (0°C)	100	8. Air services	Non-sched. service, 1,000 miles (1,600 km)	100
	10,000 degree days below 32°F (0°C)	85		Non-sched. service, 300 miles (480 km)	80
	8,500 degree days below 32°F (0°C)	75		Non-sched. service, 30 miles (48 km)	60
	7,000 degree days below 32°F (0°C)	65		Regular service, twice per month	40
	5,250 degree days below 32°F (0°C)	45		Regular service, 8 times per month	15
	3,500 degree days below 32°F (0°C)	30		Regular service, more than 30 times per month.	0
	< 1,000 degree days below 32°F (0°C)	0			
4. Types of ice			9. Population		
4a. Frozen Ground	Continuous permafrost, 1,500 feet (457 m) thick	100	9a. No. of inhabitants in settlement	None	100
	Discontinuous	60		25	90
	Ground frozen for 9 months	50		About 500	75
	Ground frozen for 4 months	20		About 1,000	60
	Ground frozen for less than 1 month	0		About 3,000	20
			About >5,000	0	
4b. Floating ice	Permanent pack in the Arctic Ocean	100	9b. Population density of the area (100,000 sq. miles or 256,000 sq. km)	Uninhabited	100
	Pack on peri-arctic seas (e.g. Baffin)	90		0.01 persons per sq. mile	90
	Pack for 9 months	60		1 persons per sq. mile	70
	Pack for 6 months	40		2.5 persons per sq. mile	50
	Pack for 4 months	20		5 persons per sq. mile	25
Pack for less than 1 month	0	10 persons per sq. mile	0		
4c. Glaciers	Ice sheet 5,000 ft. (1,524 m) thick or more	100	10. Degree of economic activity.	No production, not even in foreseeable future.	100
	Cap about 1,000 ft. (304 m) thick	60		Exploration but no exploitation.	80
	Névé	20		Gathering, extraction or handicrafts.	50
	Snow cover of less than 1" (2.5 cm)	0		Mineral concentration. Storage.	30
			Terminal.	15	
5. Total precipitation	< 4"	100	Major "secondary" enterprises	15	
	< 8"	80	Interregional center with multiple services.	0	
	< 12"	60			
	< 16"	30			
	>20"	0			

Nordicity compared by criteria, in VAPO*

Criteria	Schefferville	Fairbanks	Verkhoyansk	Ny-Ålesund	Interior Keewatin
Latitude	21	42	44	75	42
Summer warmth	37	10	62	70	60
Annual cold	42	65	100	85	75
Ice	60	50	90	90	75
Precipitation	0	65	90	60	90
Vegetation	40	15	40	80	80
Surface accessibility	20	25	50	50	100
Air services	20	35	40	75	100
Population	20	0	50	60	90
Economic activity	35	30	65	92	100
Total nordicity	295	337	631	737	812

Source: Hamelin, 1972. (page 14)



One of the main points which emerges from the patterns displayed on Figure 6A-1 is the generally small differences in level of "northernness" between most of the N.W.T. municipalities and most of the provincial selections used in this study. Such slight differences do not favour the clear isolation of the influence of cost differentials, as against service level variations, in the per capita service expenditure patterns. Possibilities for success in this form of analysis would be greatest between the extreme cases of, for example, Inuvik and Churchill, and, Camrose and Wetaskiwin. However, in these cases, different financial responsibilities, among other factors, confuse the issue. Perhaps the best line of future research to surmount these difficulties is to seek the establishment of three analytical indices; namely, service levels, cost differentials, and responsibility indices. For the present, Hemelin's approach offers a good base for such research in the area of cost differentials.

House Construction Costs: It is difficult to compare house construction costs between Edmonton and the North because of the different building materials that tend to be used. Northern homes built with brick or using much concrete involve much higher cost differences than wood frame structures. Representatives of Poole Construction Ltd., a building firm active both in northern and southern Canada, estimated that wood frame structures could cost on average 20% more in that part of the north south of Great Slave Lake, 30% more north of the Lake and 50% more in Inuvik (all in comparison to Edmonton). The additional costs are due to transportation of materials and overtime labour costs. Great site

variability exists, however, particularly owing to the distribution of permafrost. Difficult permafrost conditions necessitate additional piling. At the same time such conditions generally preclude basements, making for less of a building. Bedrock-dominated sites may demand varying amounts of concrete for bases and walls, further boosting costs above even northern averages. It may be anticipated that such local variations or their counterparts will similarly affect certain municipal services.

Land Servicing Costs: The same representatives from Poole Construction estimated that road construction costs for locations around Great Slave Lake were about 100-200% higher than for Edmonton, and 300% higher in the case of Inuvik. Water and sewer construction costs were estimated to be 150-200% higher than for Edmonton in the Great Slave Lake region. This type of construction in Inuvik was felt to involve unpredictably greater costs than those for the Great Slave Lake region.

In 1973, the average cost of servicing single family lots in Edmonton was about \$74.00 per front foot (City of Edmonton Engineering and Transportation Department). This included asphalt paving; sidewalk, curb and gutter; gravelled lane; street lights; underground power; sanitary and storm sewer; and water mains. In Yellowknife in 1973, in one development, the front foot cost for providing water/sewer/storm sewer/lift station alone ranged from \$75 to \$100 per front foot. The asphalt paving was estimated to lie in about the same range as the latter (Personal communication, G. Fessenden, C.M.H.C., March 9, 1974, reporting City of Yellowknife Works Department information). It

may therefore be anticipated that utility and road servicing in Yellowknife, to the level found in Edmonton, would indeed involve costs about 150-200% greater than for Edmonton.

This survey has revealed that a considerable range of cost differentials may exist to influence the per capita expenditures of providing municipal services. The relevant set of cost differentials may be expected to vary depending on the cost mix of the service under study. It has been indicated, for instance, that food cost differentials may only be applicable when transportation is the dominant cost component in a service cost mix. Generally, municipal services have complex cost mixes, such is the case for utilities. Problems are present with the use of utilities cost differentials, however, because of the difficulties of obtaining real cost variations. Land servicing and house construction are also imperfect sources of cost differentials since they tend to be dominated by costs associated with the import, from the south, of skilled, expensive labour or special materials or equipment maintenance capabilities. Municipal services generally do not require, to the same degree, such labour, materials or special capabilities. Where skilled specialized personnel is required in municipal services, such as in the higher echelons of general administration, public works superintendents, recreation directors, arena managers, or fire chiefs, higher northern costs are virtually inevitable. This occurs not only through the need to pay higher salaries to attract such people, but also because of the need to provide free or subsidized housing and utilities or other pre-

requisites. The cost differentials associated with such salary and benefit 'packages' may prove to be a more fruitful area of future research, especially where such costs comprise the major component in the total service cost mix.

PART III - CHAPTER 6

B. SERVICE LEVEL/SERVICE COST ANALYSIS

INTRODUCTION

The purpose of this section is to attempt to evaluate the influence of several factors in causing variations in the municipal per capita expenditures on basic municipal services. The main factor which is considered is service level. Other factors which receive prominent consideration in the analysis relate to responsibility variations, the level of financial assistance, municipal service planning difficulties or deficiencies, and, of course, the possible influence of greater costs or problems peculiar to the N.W.T. municipal scene.

Service level is a very difficult item to measure in a reliable and meaningful way. Municipal service level studies have been few in number in Canada primarily because of the measurement difficulties. Being no exception to the latter point, the following analysis is offered more as a preliminary, exploratory effort than as a source of hard and fast conclusions. The many qualifications which are stated at the beginning of each sub-section may bring into question for some, the worth of the whole exercise. It is hoped, however, that this analysis will have value in initiating a sustained joint effort by senior and municipal governments to tackle this difficult, but very basic issue. If the concluding points mentioned here are taken as hypotheses, the process of evaluation of these hypotheses by each level of government should lead to considerable refinement of the conclusions and real

progress in resolving the issue.

In the course of the analysis, reference is made to some of the few studies which have been conducted in Canada in this area. The main reference is to a service level measurement study made by the Municipal Finance Branch of the Ontario Ministry of Treasury, Economics and Inter-governmental Affairs (Ontario, 1973). Some of the service level indices used in that study are used here and included for comparative purposes. It is accepted that the very large Ontario municipalities employed in the study are, at first sight at least, in no way comparable with the N.W.T. municipalities. It should be borne in mind, however, that it is such service levels which tend to be expected by the large number of southern medium-term transients in the N.W.T. despite, among other things, the much less healthy tax bases there and the limited advantages to profit from economies of scale. In parts of the analysis a unit cost factor is included, having been derived from the Ontario study. This factor is generally equivalent to annual operating expenditures per 1,000 population divided by the service level index, which is normally also expressed in terms of so many units per 1,000 population.

Reference is made in some cases to recommended service level performance standards stated in a study of small municipalities in the Inter-lake region of Manitoba (Blaase 1971). A few points relating to the possible influence of economies of scale or demand thresholds in the provision of municipal services, is taken from a study of all the Quebec municipalities (Quebec, undated).

The analysis is based, in part, on information presented in previous chapters, but mainly on the consideration of data presented in numerous tables and figures, which accompany the discussion of each service. In some cases, information on municipalities other than those of the main study group is provided for additional comparisons.

STREET LIGHTING

Street lighting expenditures can be easily extracted from financial statements with a fair degree of confidence. It is usually a purely municipal responsibility devoid of direct capital or operating grant assistance from the senior government. In most cases, the municipality contracts the service out to a public or private utility corporation which, in turn, charges the municipality a rate depending on the number of street lights and their candle power. This user charge normally includes capital costs. In some cases, however, some extraordinary capital expenditures (such as for underground wiring) may be undertaken by the municipality, causing significant deviations in the per capita expenditures.

To aid in the interpretation of the per capita expenditures on street lighting, a standard index of service level is used. It must be stressed that this index - street lights per thousand of population - is very crude and may be expected to provide only a rough indication of service level. Since no reliable figures could be obtained from municipal officials or utility operators on the number of street lights, the per capita calculations are based on figures obtained from field investigations conducted early in 1974 and using 1972 population data.

Ideally, measurement of the levels of street lighting should take into account many factors. Examples of such factors are the strength of the lights, the density components of apartments in ratio to single family dwellings, the levels of vehicle and pedestrian traffic and community prestige.

One researcher has employed a recommended standard of street lighting of 100 lights per thousand of population (Blase, 1971). The standard was derived through consultation with officials of Manitoba Hydro. The same study includes measures of service levels for certain Interlake municipalities in Manitoba. The data shows very high levels for communities below 1,000 in population, indicating some diseconomies of scale. For municipalities greater than 1,000 the service level measures compare quite closely with the sample covered in this study.

Regarding the point on economies of scale, Quebec data from a survey of 1,600 municipalities indicate economies are achieved for populations in excess of 3,000 to 5,000 (Quebec, undated).

Per capita expenditures and service level indices for municipalities considered in the present study are shown in Table 6B-1 (See also Figure 6B-1). The following analysis is presented, bearing in mind the reservations implied in the above discussion.

There is significant variability between the N.W.T. municipalities in terms of street lighting expenditures. However, except for the case of Fort Simpson, the variation appears to be due to the narrow methods used for establishing levels of service. (It should be noted that intra-municipal variations in service level were subjectively detected by field investigators during visits to the N.W.T. municipalities.) Pine Point is known to possess a high quality of street lighting service by virtue of a good array of mercury-vapour lights. This municipality can also well afford the above-average level of service by N.W.T. standards. Hay River also spends a large amount on this service, yet

it realizes a high level of service. The other N.W.T. municipalities spend little on street lighting. This is particularly surprising for Inuvik and Fort Simpson, where power rates are very high. It is possible that N.C.P.C. provides relatively favourable treatment to these communities. Part of the reason for Yellowknife's value is low power rates, although a lower level of service also seems to exist. The latter reason appears to explain the low level of per capita expenditure for Fort Smith.

Except for Pine Point and Hay River, per capita expenditures on street lighting tend to be less than those for the provincial sample. The only comparably low values are those for High Level, La Ronge, Lynn Lake and Thompson. For the first two municipalities the reason probably lies with relatively low levels of service, but in the case of Lynn Lake, it is probably that the company, which provides many of the townsite services, absorbs a large portion of costs. Low power rates may favour the low value for Thompson. Well-served southern municipalities tend to have per capita expenditures ranging from about \$4.50 to \$6.50. Fort McMurray has the highest value of the provincial municipalities sampled. Interestingly, its value is just slightly greater than those for Fox Creek and Camrose, the two 'best-served' municipalities in all of the sample. It would, therefore, appear that Fort McMurray has to spend a greater amount for a lower level of service. It is also possible that the dense areas of population in the numerous and vast trailer parks in Fort McMurray mitigate against the need for many lights to give a satisfactory service level. The latest data for Fort

Nelson also indicate that this municipality is spending a relatively large amount for a low level of service. Part of the high expenditure level for Fort Nelson is due to capital expenditures made during a period of rapid growth. Fort Nelson is also a dispersed community.

The relatively low level of expenditures for street lighting in the N.W.T. municipalities may reflect lower priorities placed on this service. Street lighting is generally an uncontroversial service area and during field visits to the municipalities, nothing was found to indicate that the level of service was a source of dissatisfaction. Much of the high expenditure totals in southern municipalities may be due to the need for intense lighting of major arterial highways and intersections. Alternatively, relatively prosperous southern municipalities (and rich northern ones) may indulge in extravagant levels of service in downtown districts for prestige reasons or competitive advantage.

It is difficult to positively isolate the significance of higher costs in the northern municipalities for street lighting. This may be related to the fact that street lighting everywhere requires little in the way of maintenance (and hence labour costs) and the operations can benefit from favourable bulk power rates. Different priorities and needs also may be important.

TABLE III I

STREET LIGHTING (Continued)

MUNICIPALITY	1970	1971	1972	1973	Average	Number of Street Lights*	Street Lights/ 1,000 Population**	Remarks
THOMPSON, MANITOBA								
Expenditure \$	61,321	118,892	52,523					
Population	17,000	18,953	19,001			1,412	74	
p.c. Expend. \$	3.72	6.27	2.76		4.25			
THE PAS, MANITOBA								
Expenditure	18,335	29,506	11,989					
Population	6,100	6,800	7,000			522	74	
p.c. Expend.	3.01	4.34	4.57		3.97			
CAMPOSE, ALBERTA								
Expenditure	54,290	56,418	57,586					
Population	8,892	8,903	8,988			1,031	114	Includes partial installation costs for underground wiring in new subdivisions.
p.c. Expend.	6.11	6.34	6.41		6.29			
WETASKIWIN, ALBERTA								
Expenditure	28,272	29,228	29,642					
Population	6,456	6,586	6,510			568	87	Overhead wiring - pay power only.
p.c. Expend.	4.38	4.38	4.55		4.44			
FORT SASPACHIEWAN, ALBERTA								
Expenditure	20,644	23,547	29,065					
Population	5,302	5,734	6,328			300	47	
p.c. Expend.	3.20	4.12	4.59		3.97			
HISTON, ALBERTA								
Expenditure	20,831	23,000	25,409					
Population	4,461	4,690	5,326			448	84	
p.c. Expend.	4.67	4.90	4.77		4.78			
* According to survey made early in 1974								
** 1972 population figures employed								
GRANDE CACHE, ALBERTA								
Expenditure \$	4,265	11,127	22,230					
Population	1,400	2,500	3,540			359	100	
p.c. Expend.\$	3.05	3.97	6.21		4.41			
LYNN LAKE, MANITOBA								
Expenditure	3,811	4,200	4,000					
Population	3,200	3,500	3,500					
p.c. Expend.	1.19	1.20	1.14		1.18			

TABLE 6B-1

STREET LIGHTING (Continued)

MUNICIPALITY	1970	1971	1972	1973	Average	Number of Street Lights*	Street Lights/ 1,000 Population**	Remarks
HIGH LEVEL, ALBERTA								
Expenditure \$	5,057	4,692	4,779	4,717				
Population	2,006	2,006	1,671	1,600		77	38	
p.c. Expend. \$	2.52	2.34	2.95	2.95	2.69			
FOX CREEK, ALBERTA								
Expenditure	4,821	8,396	9,672					
Population	876	1,253	1,514			178	117	
p.c. Expend.	5.50	6.70	6.39		6.20			
FORT McMURRAY, ALBERTA								
Expenditure	38,880	44,609	50,979					
Population	6,500	7,000	7,600			528	69	
p.c. Expend.	5.98	6.37	6.71		6.35			
HUDSON BAY, SASK.								
Expenditure	4,637	6,989	7,810					
Population	2,000	1,935	2,028			156	76	Does not include installation costs
p.c. Expend.	2.32	3.61	3.85		3.26			
LA RONGE, SASK.								
Expenditure	3,504	3,532	3,215					
Population	1,100	1,100	1,100			92	83	Must pay nearly all capital costs for new installations
p.c. Expend.	3.19	3.21	2.92		3.11			
FORT NELSON, B.C.								
Expenditure		6,000	9,261	16,010				
Population	2,200	2,400	2,500	2,750		157	16	Rental from B.C. Hydro--Underground wiring extra costs paid by town
p.c. Expend.		1.99	3.70	5.13	3.61			

* According to survey made early in 1974

** 1972 population figures employed

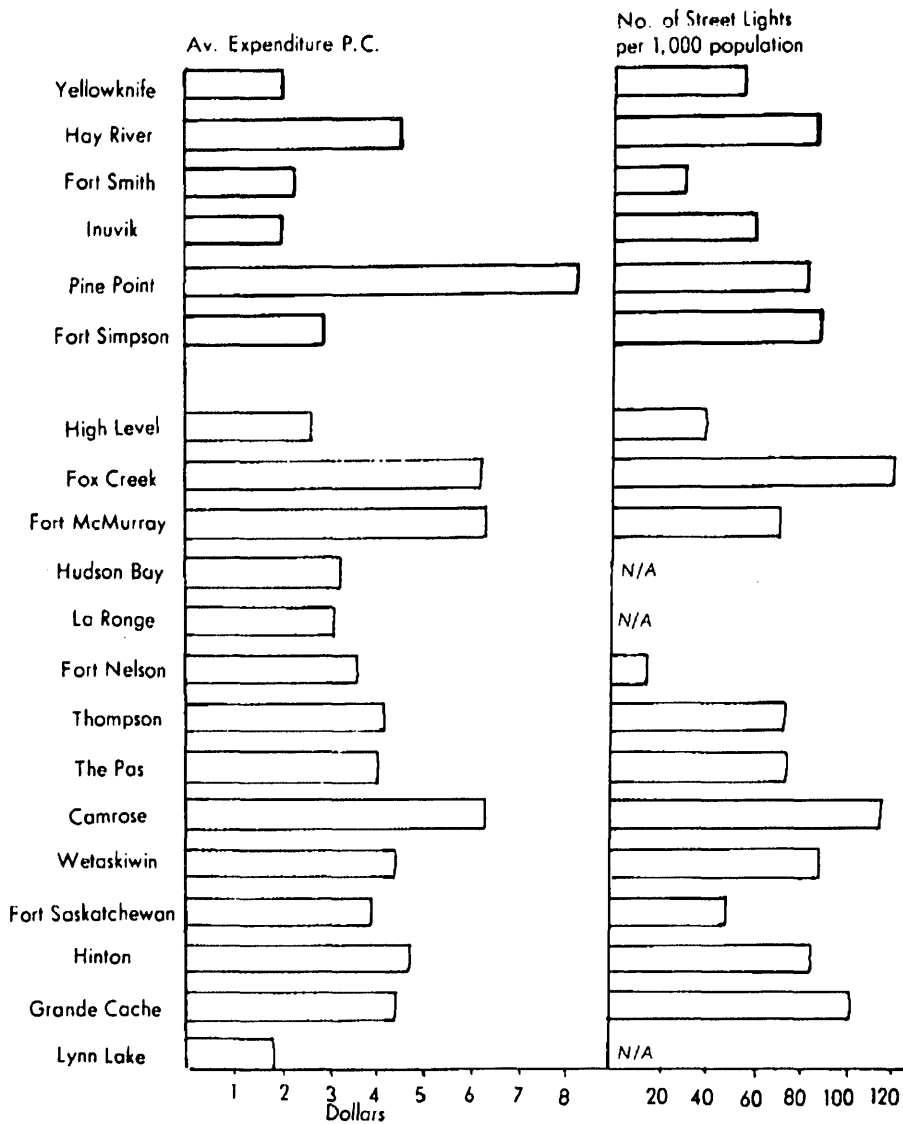
TABLE 6B-1

MUNICIPALITY	1970	1971	1972	1973	STREET LIGHTING		Remarks
					Average	Number of Street Lights*	
YELLOWKNIFE, N.W.T.							
Expenditure \$	11,402	12,840	18,273				
Population	6,500	7,100	7,400		405	54	
p.c. Expend. \$	1.75	1.81	2.47		2.01		
HAY RIVER, N.W.T.							
Expenditure	11,377	15,210	18,097	17,524			
Population	2,900	3,200	3,500	4,000		300	85
p.c. Expend.	3.92	4.61	5.16	4.38	4.52		
FORT SMITH, N.W.T.							
Expenditure	5,350	6,200	5,385				
Population	2,500	2,500	2,500			166	30
p.c. Expend.	2.14	2.48	2.15		2.26		
INUVIK, N.W.T.							
Expenditure	6,642	6,971	6,703	7,604			
Population	3,080	3,300	3,500	3,850		400 (Est.)	59
p.c. Expend.	2.16	2.11	1.92	1.98	2.04		
PINE POINT, N.W.T.							
Expenditure		9,903					
Population		1,200				100 (Est.)	83
p.c. Expend.		8.25			8.25		
FORT SIMPSON, N.W.T.							
Expenditure		2,907					
Population		1,000				87	87
p.c. Expend.		2.91			2.91		

* According to survey made early in 1974

** 1972 population figures employed

Figure 6B-1
STREETLIGHTING: AVERAGE ANNUAL PER CAPITA EXPENDITURE
AND SERVICE LEVEL INDEX, SELECTED MUNICIPALITIES *



* See relevant text and tables for detailed interpretation

Source: Table 6B-1

GARBAGE COLLECTION AND DISPOSAL

Garbage collection, like street lighting, tends to be a service for which expenditure totals can be easily extracted from the financial statements. A fair degree of confidence may be placed on the validity of this data but the possibility of differing accounting practices should not be ruled out. One example of this difficulty is encountered at Fort McMurray where garbage collection salaries were combined with those for sewer system operation. It is always possible that a portion of the actual costs incurred in the delivery of this service is absorbed by other departments. This is less likely to be the case where the service is contracted out to a private operator (as is often the case). In the latter situation, municipalities may be able to negotiate varying deals on the contract price. The contract may require the operator to make special or supplementary charges for commercial pick-ups above a municipally set minimum frequency.

Like street lighting, garbage collection and disposal is not generally subject to senior government financial support. Municipal costs are met mainly through general revenue, whether the service is performed by the municipality or by a contractor. In some cases, the municipality levies a direct user charge to cover contract costs.

The cost make-up for garbage collection and disposal contains a greater emphasis on labour costs and costs for vehicle operation and maintenance. This makes it more susceptible to the large cost differentials identified in the cost survey presented in the preceding section (Section A). It is conceivable, however, that relatively cheap unskilled

local labour would be available and thus serve to reduce the magnitude of such differentials.

Again, a crude index of service level has been employed; namely, the frequency of residential and commercial pick-ups. Ideally, more refined measures of service level would include such factors as tonnage of garbage collected, number of containers collected, the relative importance of residential to commercial components, etc.

Bearing the above reservations in mind, the following analysis is presented. Referring to Table 6B-2 and Figure 6B-2, it is difficult to identify any definite pattern in any of the data. Yellowknife has consistently spent relatively more on this service, possibly because of its well-developed commercial and government offices sector. Pine Point spends a similar amount, however, but has a much less well-developed commercial sector. Fort Simpson's high expenditures may be related to diseconomies of scale affecting the service. The remainder of the N.W.T. municipalities incur a relatively similar range of per capita costs. Inuvik tops this range, possibly on account of the naturally greater costs of operating in such a northern location. Hay River could be suffering from a low level of service. This comment may apply only to certain portions of the municipality with the result that the population served (and used in the per capita calculations) should be reduced. During the field visit, Fort Smith officials explained the high frequency of pick-ups in terms of the raven problem. The current level of service was considered adequate, however, and is bought by the town at a contract price of \$1,600 per month.

Expenditure levels for Yellowknife and Pine Point are the highest of any of the municipalities sampled in this study. It is difficult to attribute this fact unequivocally to the play of higher northern costs. As with three other N.W.T. municipalities, adequate levels of service appear to be obtained in most of the provincial municipalities for per capita expenditures in the range of \$4.00 to \$9.00. The relatively northern and isolated municipalities of Grande Cache, Fort McMurray and La Ronge exhibit somewhat greater expenditure levels in the most recent year's data. This suggests that additional northern costs may be a factor, but significant cost differentials are not evidenced by the data in its present form.

Note: On Charts 6B-2 the method of providing the service and the frequency of pick-ups refer to the period in early 1974 when field visits were made to the municipalities. It may be possible that some information does not apply to the years for which financial data is presented.

TABLE 6B-2

MUNICIPALITY	1970	1971	1972	1973	Average	Method of		Frequency of Pick-ups		Remarks
						Municipal	Contract	Residences	Commercial	
YELLOWKNIFE, N.W.T.										
Expenditure \$	82,243	114,167	116,220							
Population	6,500	7,100	7,400							
p.c. Expend.	12.65	16.08	15.71		14.81		Contract	1/week	negotiated	
HAY RIVER, N.W.T.										
Expenditure	14,672	17,888	17,015	20,885						
Population	2,900	3,200	3,500	4,000						
p.c. Expend.	5.06	5.59	4.86	5.22	5.18		Contract	2/week	4/week	
FORT SMITH, N.W.T.										
Expenditure	14,379	18,105	19,200							
Population	2,500	2,500	2,500							
p.c. Expend.	5.75	7.24	7.64		6.88		Contract	3/week	3/week	1972 figure estimated
INUVIK, N.W.T.										
Expenditure	22,687	24,918	28,870	40,811						
Population	3,080	3,300	3,500	3,850						
p.c. Expend.	7.37	7.55	8.25	10.60	8.44		Municipal	1/week	1/day	
PINE POINT, N.W.T.										
Expenditure		20,079								
Population		1,200								
p.c. Expend.		16.73			16.73		Contract	2/week	3/week	
FORT SIMPSON, N.W.T.										
Expenditure		10,176								
Population		1,000								
p.c. Expend.		10.18			10.18		Municipal	2/week	negotiated	

TABLE 6B-2

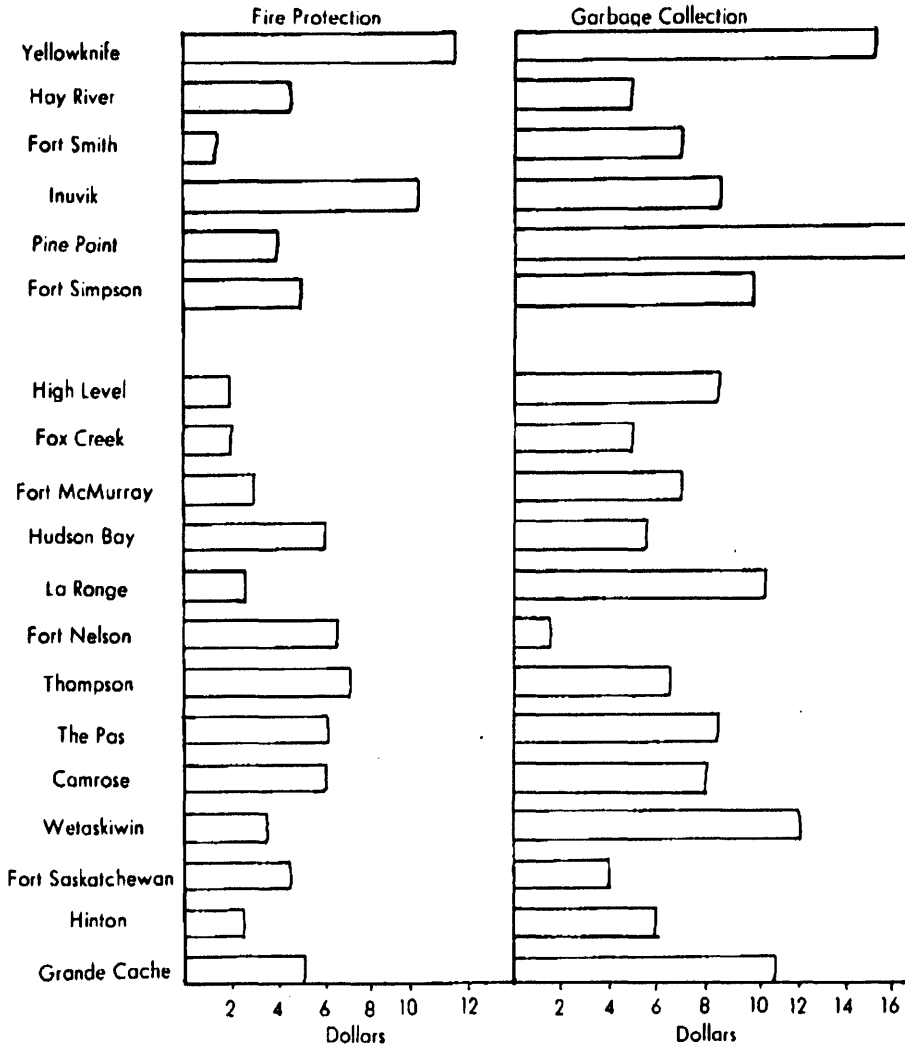
MUNICIPALITY	1970	1971	1972	1973	Average	Method of		Frequency of Pick-ups		Remarks
						Operating Municipal	Service Contract	Residences	Commercial	
HIGH LEVEL, ALBERTA										
Expenditure \$	15,603	14,156	13,660	16,315						
Population	2,004	2,004	1,621	1,600						
p.c. Expend.\$	7.79	7.06	8.43	10.20	6.37		Contract	1/week	1/week	Not entirely adequate-enforcement by-law being passed
FOX CREEK, ALBERTA										
Expenditure	1,498	8,393	10,037							
Population	876	1,253	1,514							
p.c. Expend.	1.71	6.70	6.63		5.01		Contract	1/week	2/week	\$3.00/month
FORT McMURRAY, ALBERTA										
Expenditure	34,371	50,712*	69,134*							
Population	6,500	7,000	7,600				Municipal	1/week	2/week	*Sewage & garbage salaries combined - used 1/2 salaries given
p.c. Expend.	5.29	7.24	9.10		7.21					
HUDSON BAY, SASK.										
Expenditure	10,882	10,497	11,503							
Population	2,000	1,915	2,028							
p.c. Expend.	5.44	5.24	5.67		5.45		Contract	1/week	2/week	\$3.50/month
LA RONGE, SASK.										
Expenditure	11,010	12,795	11,034							
Population	1,100	1,100	1,100							
p.c. Expend.	10.00	11.18	10.03		10.40		Contract	1/week	1/day	
FORT NELSON, B.C.										
Expenditure			3,221	3,745						
Population			2,500	2,750						
p.c. Expend.			1.29	1.36	1.33		Contract	1/week	negotiated	\$8.00/month-poor service-many people opt out

TABLE 6B-2

MUNICIPALITY	1970	1971	1972	1973	Average	Method of		Frequency of Pick-ups		Remarks
						Operating Service	Contract	Residences	Commercial	
GARBAGE COLLECTION AND DISPOSAL										
THOMPSON, MANITOBA										
Expenditure \$	99,523	121,087	130,061							
Population	17,000	18,953	19,001							
p.c. Expend. \$	5.85	6.39	6.84		6.36	Municipal		2/week	1/day	
THE PAS, MANITOBA										
Expenditure	55,496	48,382	61,779							
Population	6,100	6,800	7,000							
p.c. Expend.	9.10	7.12	8.83		8.35	Municipal		1/week	2/week	
CANROSE, ALBERTA										
Expenditure	52,597	73,836	82,263							
Population	8,892	8,903	8,988							
p.c. Expend.	5.88	8.29	9.15		7.77	Municipal		1/week	2/week	
WETASKIWIN, ALBERTA										
Expenditure	67,329	77,802	94,094							
Population	6,456	6,586	6,510							
p.c. Expend.	10.43	11.81	14.45		12.23	Contract		1/week	1/day	\$15.00/year
FORT SASKATCHEWAN, ALBERTA										
Expenditure	21,929	24,764	26,966							
Population	5,302	5,734	6,328							
p.c. Expend.	4.14	4.32	4.26		4.24	Contract		1/week	3/week	
HINTON, ALBERTA										
Expenditure	23,444	29,875	33,837							
Population	4,461	4,690	5,326							
p.c. Expend.	5.23	6.37	6.35		5.98					
GRANDE CACHE, ALBERTA										
Expenditure \$	16,312	29,467	40,828							
Population	1,400	2,800	3,580							
p.c. Expend. \$	11.65	10.52	11.40		11.19					

Figure 6B- 2

**FIRE PROTECTION AND GARBAGE COLLECTION SERVICES:
AVERAGE ANNUAL PER CAPITA EXPENDITURES,
SELECTED MUNICIPALITIES ***



* See relevant text and tables for detailed interpretation.

Source: Tables 6B -- 2 6B -- 3

FIRE PROTECTION

Fire protection, like street-lighting and garbage collection, is usually a purely municipal area of responsibility. This statement requires some qualification for the N.W.T. municipalities because of the various forms of capital assistance provided by the territorial government. On occasion, the government has provided capital assistance in the form of fire-fighting equipment or fire halls built in conjunction with civic offices. This practice is much less prevalent in provincial municipalities which often have to include debenture retirement payments as part of their fire protection expenditures.

No attempt has been made here to quantify the benefits conferred on certain N.W.T. municipalities by senior governments. It may also be noted that a form of operating assistance grant is provided by the N.W.T. government to municipal fire departments. This consists of assistance towards the costs and travel expenses of regular meetings and seminars of the N.W.T. firemen. No other direct government assistance is provided, however, and the service costs are met wholly out of general revenue.

In some situations the purely municipal responsibility for the service is diluted by contributions, reciprocal or otherwise, from major industrial establishments associated with the municipality. This feature applies particularly to the fire protection services in Pine Point and Thompson.

The demand for fire protection services is considerably higher in larger centres. Very small municipalities may avoid heavy expenditures by benefiting from their proximity to larger well-served centres.

Normally this option is not open to northern municipalities to the same degree because of their greater distance from one another. The Quebec data, mentioned in the street-lighting discussion, indicated that fire protection expenditures increase rapidly as population levels exceed 4,000.

Measures of levels of service generally focus on the number of permanent and volunteer firemen per thousand of population. A better measure would be achieved if the value and relative dispersion of property in the community were also taken into consideration. In the present survey, information on manpower and equipment has been presented to permit some evaluation of the service level (Table 6B-3, Figure 6B-2). Again this information relates to the period of field investigations in early 1974 rather than the years for which data is available. This practice may have shortcomings in rapidly growing municipalities.

Of the N.W.T. municipalities, Yellowknife and Inuvik have the greatest levels of per capita expenditure on fire protection. The Yellowknife trend appears to be directly related to the rapid growth of the municipality. Many new buildings have raised the property value requiring protection, and the city has reached the stage where permanent firemen, assisting a permanent chief, are necessary. Inuvik has a remarkably high per capita expenditure on fire service for such a small community. The factor of higher northern costs appears to be definitely at work here. In addition, such is the apparent severity of Inuvik's fire problem, that a permanent fire chief is justified.

Fort Smith spends a very low amount on fire protection in relation

to its population. It is in fact the lowest of the whole sample. It is possible that other costs are incurred which are accounted for in other municipal departments. For instance, operating costs of the fire hall are covered in general administration costs since the fire hall is in the same building as the town office. The whole explanation does not lie hidden in accounting practices, however. The level of service appears to be relatively low. The fire hall is not adequate since it doubles as the town office and the only equipment is old and needs to be replaced. Some of the deficiencies appear to be recognized since it is the intent of the town to hire a full-time chief (who will also be responsible for by-law enforcement) and to order a new pumper.

The remaining N.W.T. municipalities have expenditure levels in the range commonly encountered in the provincial municipalities; namely, from about \$2.00 to \$6.50 per capita. The information on manpower and equipment indicates the likelihood that these municipalities are as well served as those in the provinces.

Southern municipalities located towards the low portion of the range mentioned above are Fox Creek, High Level, La Ronge and Hinton. The information available for the first three communities suggests that the main reason for this is the low levels of remuneration distributed to their volunteer force. Camrose and Thompson tend towards the high level of this range, probably on account of their high populations and the concomitant demands for a higher level of service.

Labour costs and the operating and maintenance costs of buildings and vehicles figure prominently in the cost mix for this service.

Permanent firemen are skilled professionals who require monetary incentive and other prerequisites, such as housing allowances, to be attracted to employment in northern municipalities. Once a municipality passes the threshold when permanent staff become necessary, expenditures rise abruptly. Also, in large population centres, remuneration for a large staff of volunteers may become an important budget item. In addition, requirements arise for new and more sophisticated equipment such as is the case currently in Yellowknife with its request to the N.W.T. government for a ladder vehicle.

It would appear that the smaller centres in the N.W.T. can manage to obtain levels of fire protection equivalent to that of their counterparts in the south for about the same per capita costs. For the relatively large centre such as Yellowknife, or in locations where service problems and costs are accentuated, such as Inuvik, the pattern is different. In general, such communities must bear a greater financial burden than their southern counterparts to maintain a similar adequate level of service.

One general point which may be made in connection with the N.W.T. municipalities, but which possibly also applies in rapidly growing northern provincial municipalities, relates to the enforcement or lack of enforcement of an adequate building code. Rapid development of the North has meant a lag in the development of such a code. Municipalities such as Inuvik may be suffering a relatively high incidence of fire problems as a result. There is an increasing realization among municipalities, however, that adoption of stricter building codes would shift

some of the responsibility for fire prevention measures onto developers.
Such a move may also serve to reduce the rate of increase of municipal
fire protection expenditures.

TABLE 6B-3

FIRE PROTECTION

MUNICIPALITY	1970	1971	1972	1973	Average	Manpower	Equipment	Remarks
YELLOWKNIFE, N.W.T.								
Expenditure \$	53,558	76,996	96,629			1 Permanent Chief		
Population	6,500	7,100	7,400			2 Permanent Firemen		
p.c. Expend. \$	8.24	10.84	13.06		10.71	20 Volunteers		
HAY RIVER, N.W.T.								
Expenditure	12,663	14,893	13,978	19,106		1 Volunteer Chief	3 Pumper	
Population	2,900	3,200	3,500	4,000		23 Volunteers	1 Equipment Truck	
p.c. Expend.	4.37	4.65	3.99	4.78	4.45		3 Fire Stations	
FORT SMITH, N.W.T.								
Expenditure	3,570	4,160	3,319			1 Part-time Chief	1 1957 Pumper	Fire Hall not adequate. It is used for town office. Due to hire full-time Chief.
Population	2,500	2,500	2,500			(water plant operation)		
p.c. Expend.	1.43	1.66	1.33		1.47	18 Volunteers		
						\$5/drill-\$8/fire		
INUVIK, N.W.T.								
Expenditure	31,234	41,435	29,364	31,116		1 Permanent Chief	2 Pumper Trucks	
Population	3,080	3,300	3,500	3,850		21 Volunteers		
p.c. Expend.	10.14	12.56	8.39	8.08	9.79			
PINE POINT, N.W.T.								
Expenditure		4,830				1 Volunteer Chief	1 Pumper	Mutual protection Agreement with Cominco mine site.
Population		1,200				17 Volunteers	2 Bay Hall	
p.c. Expend.		4.03			4.03	\$5/fire-\$2/drill		
FORT SIMPSON, N.W.T.								
Expenditure		4,948				1 Part-time Chief	1 Old Pumper	
Population		1,000				12 Volunteers	1 Back Up Water Delivery Truck	
p.c. Expend.		4.95			4.95	\$5/fire-\$2/drill	2 Bay Fire Hall	

TABLE 68-3

FIRE PROTECTION

MUNICIPALITY	1970	1971	1972	1973	Average	Manpower	Equipment	Remarks
HIGH LEVEL, ALBERTA								
Expenditure \$	5,341	3,601	3,810	2,493		1 Volunteer Chief	1 New Pumper	
Population	2,004	2,004	1,621	1,600		15 Volunteers	2 Private Water Trucks for Backup	
p.c. Expend. \$	2.67	1.80	2.35	1.56	2.10	\$1,500/year/force	1 Bay in Town Hall	
FOX CREEK, ALBERTA								
Expenditure	2,061	2,385	2,594			1 Volunteer Chief	1 New Pumper	
Population	875	1,253	1,514			16 Volunteers	2 Bays in Civic Hall	
p.c. Expend.	2.35	1.90	1.71		1.99	\$1,500/year/force		
FORT McMURRAY, ALBERTA								
Expenditure	18,449	21,247	20,554			1 Chief being hired	2 Pumps	System being radically
Population	6,500	7,000	7,600			24 Volunteers	2 Bays at P.W.A. Depot	up-graded
p.c. Expend.	2.84	3.04	2.70		2.86			
HUDSON BAY, SASK.								
Expenditure	11,280	11,347	12,573			1 Volunteer Chief	2 Pumps ('52 & '68)	
Population	2,000	1,935	2,028			22 Volunteers	1 Water Truck	
p.c. Expend.	5.64	5.86	6.20		5.90	Chief receives \$500/yr. Men receive \$25/yr.	2 Bay Hall	
LA RONCE, SASK.								
Expenditure	1,540	1,819	4,368			1 Volunteer Chief	1 Pumper Truck	Fire Hall is inadequate
Population	1,100	1,100	1,100			20 Volunteers	1 Water Truck	
p.c. Expend.	1.40	1.65	3.97		2.34	\$200/yr. to whole force	1 Emergency Vehicle	
							1 Ambulance	
							2 Bay Hall	
FORT NELSON, B.C.								
Expenditure			7,859	27,662		1 Permanent Chief	2 Pumps	Received \$5,600 levy on
Population			2,500	2,750		30 Volunteers	Main & Sub-station	surrounding area (1972)
p.c. Expend.			3.14	10.06				

TABLE 6B-J

FIRE PROTECTION

MUNICIPALITY	1970	1971	1972	1973	Average	Manpower	Equipment	Remarks
THOMPSON, MANITOBA								
Expenditure \$	66,898	140,184	165,332			1 Permanent Chief	2 Ladders/Pumpers	Reciprocal agreement with Inco mine site
Population	17,000	18,953	19,001			10 Permanent Fire Fighters	2 Rescue Trucks	
p.c. Expend.\$	3.94	7.40	8.70		6.68	22 Volunteers	1 Ambulance 6 Bays in Town Hall	
THE PAS, MANITOBA								
Expenditure	31,116	39,887	47,063			1 Permanent Chief	3 Trucks	
Population	6,100	6,800	7,000			35 Volunteers \$5-\$7/hr./fire	1 Rescue Wagon & Car in Civic Complex	
p.c. Expend.	5.15	5.87	6.72		5.91	1/2 above for drills		
CAMROSE, ALBERTA								
Expenditure	46,431	51,151	53,470			1 Permanent Chief & Assistant	4 Pumps	Mutual agreement with Leduc and Wetaskiwin
Population	8,892	8,903	8,988			1 Permanent Deputy Chief	1 Water Truck	
p.c. Expend.	5.22	5.75	5.95		5.64	30 Volunteers \$4/hr. for drills & fires		
WETASKIWIN, ALBERTA								
Expenditure	22,219	23,267	25,298			1 Permanent Chief	5 Pumps (2 New)	Mutual agreement with Camrose and Leduc
Population	6,456	6,586	6,510			24 Volunteers	4 Bay Hall Radio Equipped	
p.c. Expend.	3.44	3.53	3.89		3.62	\$3.00/drill \$5.00/1st hr. & \$3.00/hr. after		
FORT SASPACHHEWAN, ALBERTA								
Expenditure	25,831	27,888	20,917			1 Permanent Chief	3 Pumps	One truck provided by County for mutual protection
Population	5,302	5,734	6,328			15 Volunteers \$3.00/hr.	3 Bay Hall	
p.c. Expend.	4.87	4.86	3.31		4.35			
HINTON, ALBERTA								
Expenditure	10,998	12,378	12,105			18 Volunteers	2 Trucks	
Population	4,441	4,690	5,326					
p.c. Expend.	2.47	2.64	2.27		2.46			
GRANDE CACHE, ALBERTA								
Expenditure \$	10,864	11,790	14,836			18 Volunteers	1 Truck	
Population	1,400	2,800	3,580					
p.c. Expend.\$	7.76	4.21	4.14		5.37			

NOTE: Manpower and equipment given is for the time of the field visits, early 1974.

AMBULANCE SERVICE

Municipal responsibility for the provision of ambulance services varies greatly from municipality to municipality. This service may be completely private in operation, private with a municipal subsidy of some kind, jointly operated by a municipality and a hospital, or fully operated by the municipality, often through its fire department. Whatever the mode of operation, the actual cost to the municipality often amounts to only a negligible portion of the total budget. The adequacy of the level of ambulance services, perhaps more than most other municipal services, a function of individual circumstances.

The provision of this service can prove especially troubling to N.W.T. municipalities since the market to support private operators does not exist to the degree present in the more heavily populated parts of Canada. Also, for those municipalities on the Mackenzie Highway System, there is understandable reluctance (usually overcome easily at the time of need) to permit ambulances to attend emergency calls outside of municipal boundaries and thereby deprive itself of ambulance services for an indeterminate period of time.

For information purposes, the ambulance situation in the municipalities sampled in this study is presented in Table 6B-4.

Government assistance in the form of capital grants for the purchase and replacement of ambulances for municipalities has recently been instituted in the N.W.T. The municipalities appear to prefer territorial government operation of the whole service. This is beyond the financial scope of the government at present, and may only be feasible through

some federal cost-sharing scheme on ambulance service. This does not appear likely in the foreseeable future.

TABLE 6B-4
AMBULANCE SERVICE

MUNICIPALITY	EXPENDITURE, WHERE APPLICABLE			AVERAGE PER CAPITA	ACTUAL \$ COST, WHERE APPLICABLE (Expenditure-Revenue)			REMARKS
	1970	1971	1972		1970	1971	1972	
YELLOWKNIFE, N.W.T.								
\$ Expenditure	5,472	4,909	6,566		797	(-191)	(-1084)	Profitable operation. Vehicles operated by bylaw officers. Seeking hospital operation.
Population	6,500	7,100	7,400		loss	profit		
\$ Expenditure p.c.	0.84	0.69	0.89	0.81				
HAY RIVER, N.W.T.								
\$ Expenditure	982	766	1,062		380	354	396	One ambulance, volunteer driver from Fire Department. Government provided ambulance, town provides operation.
Population	2,900	3,200	2,500					
\$ Expenditure p.c.	0.33	0.24	0.30	0.29				
FORT SMITH, N.W.T.				NOT APPLICABLE				Private operation at present but town expects to take advantage of government ambulance grant.
INUVIK, N.W.T.				NOT APPLICABLE				Hospital operation; non-native user charge.
FORT SIMPSON, N.W.T.				NOT APPLICABLE				Hospital operation; non-native user charge.
PINE POINT, N.W.T. (March 1971-March 1972)								
\$ Expenditure		106				106		Cominco provides two well-equipped ambulances. No user charge. Cost to Pine Point is minimal.
Population		1,200						
\$ Expenditure p.c.		.06						
HIGH LEVEL, ALBERTA				NOT APPLICABLE				Private operation; no town subsidy.
FOX CREEK, ALBERTA								
\$ Expenditure			1,915				310	Town owned and operated. Volunteer drivers.
Population			1,514					
\$ Expenditure p.c.			1.26					

TABLE 6B-4

AMBULANCE SERVICE

MUNICIPALITY	EXPENDITURE, WHERE APPLICABLE		AVERAGE PER CAPITA	ACTUAL \$ COST, WHERE APPLICABLE (Expenditure-Revenue)		REMARKS
	1970	1971		1972	1970	
FORT McMURRAY, ALTA.						
\$ Expenditure	2,013	2,504		2,013	2,504	Part-time operation by municipal employee. Town collects bills charges 10% for administration, will absorb any bad debts, etc.
Population	7,000	7,600				
\$ Expenditure p.c.	0.29	0.33	0.31			
HUDSON BAY, SASK.			NOT APPLICABLE			Prior to 1974, private operation or by R.C.M.P. In 1974 joint agreement with hospital and L.I.D. Hospital requisitions for costs.
LA RONGE, SASK.	NO EXPENDITURES OR COSTS EXTRACTABLE FROM FINANCIAL STATEMENTS					Ambulance owned by village and operated by fire brigade. \$10 fixed fee. Services surrounding district and highway.
THOMPSON, MAN.	NO EXPENDITURES OR COSTS EXTRACTABLE FROM FINANCIAL STATEMENTS					Ambulance owned by city, operated by fire department.
THE PAS, MAN.			SEE REMARKS			Operated privately, town provides grant of \$3,000 per annum. L.C.D. provides small subsidy.
FORT NELSON, B.C.			NOT APPLICABLE			Operated by health clinic.
HACKENZIE, B.C.			NOT APPLICABLE			Operated by health clinic.
CAMROSE, ALBERTA						
\$ Expenditure	3,197	4,632		3,197	4,632	Joint agreement with county, costs split 50-50. Operated by hospital.
Population	8,903	8,988				
\$ Expenditure p.c.	0.36	0.52	0.44			
WETASKIWIN, ALTA.			NOT APPLICABLE			Operated by hospital. No city involvement.

LIBRARY SERVICE

Government assistance to municipalities with library services has been discussed in Chapter 4. For information purposes, the position of the sample municipalities with respect to library services is detailed in Table 6B-5. Municipal involvement, where present, does not generally entail very large expenditures. These are usually offset in large part, or minimized, by assistance from the senior governments.

TABLE 68-5
LIBRARY SERVICE

MUNICIPALITY	EXPENDITURE			1973	AVERAGE PER CAPITA EXPENDITURE	REMARKS
	1970	1971	1972			
YELLOWKNIFE, N.W.T.						
\$ Expenditure	1,012	1,552	3,639			City pays operation costs in excess of the \$1,500 per annum granted by the government. New library currently under construction.
Population	6,500	7,100	7,400			
\$ Per Capita	0.16	0.22	0.49		0.29	
HAY RIVER, N.W.T.	EXPENDITURES NOT EXTRACTABLE FROM STATEMENTS					Territorial library system headquarters. Town pays 50¢ per capita towards the library operation.
FORT SMITH, N.W.T.						
\$ Expenditure	2,243	2,394	3,647			Town pays operating costs above \$1,500 or 50% of total costs.
Population	2,500	2,500	2,500			
\$ Per Capita	0.90	0.96	1.46		1.11	
INUVIK, N.W.T.						
\$ Expenditure	3,586	4,667	6,996	2,045		Operated by library board for municipality. Library owned by government; town effectively pays portion of operating costs.
Population	3,080	3,300	3,500	3,850		
\$ Per Capita	1.16	1.41	2.00	0.53	1.28	
FORT SIMPSON, N.W.T.	NOT APPLICABLE					Operated by Territorial Government.
PINE POINT, N.W.T.	SEE REMARKS					Branch library of regional system. Municipality pays \$40 per month for janitor (since 1972).
HIGH LEVEL, ALTA.						
\$ Expenditure	-	549	-	500		Town now pays \$500 per year, but owned and operated by province, located in school. Town planning own library.
Population		2,004		1,600		
\$ Per Capita		0.27		0.31	0.29	
FOX CREEK, ALTA.						
\$ Expenditure	1,314	1,150	1,514			Town owned and operated, with assistance of \$1.00 per capita grant from province.
Population	876	1,253	1,514			
\$ Per Capita	1.50	0.92	1.00		1.14	

TABLE 68-5
LIBRARY SERVICE

MUNICIPALITY	1970	EXPENDITURE		1973	AVERAGE PER CAPITA EXPENDITURE	REMARKS
		1971	1972			
FORT McMURRAY, ALTA.						
\$ Expenditure	7,085	7,513	13,569			Town owned and operated.
Population	6,500	7,000	7,600			
\$ Per Capita	1.09	1.07	1.79		1.32	
HUDSON BAY, SASK.						
\$ Expenditure	2,479	690	777			Owned and operated as part of a regional system. Town paid 0.25¢ per capita up to 1972. Levy in 1974 will be \$1.05 p.c., and \$1.25 p.c. in 1975.
Population	2,000	1,955	2,028			
\$ Per Capita	1.24	0.35	0.38		0.66	
LA RONGE, SASK.						
\$ Expenditure	937	3,253	2,308			Owned and operated by the village but linked with provincial system.
Population	1,100	1,100	1,100			
\$ Per Capita	0.85	2.96	2.10		1.97	
THOMPSON, MAN.	NOT EXTRACTABLE					Owned and operated by city. Supported by 1 mill on tax rate.
THE PAS, MAN.						
\$ Expenditure	3,000	4,000	5,000	8,000		New library being built under D.R.E.E. program.
		(Budgetted values)				
FORT NELSON, B.C.	NOT APPLICABLE					Village now provides a grant to library operation.
MACKENZIE, B.C.						
\$ Expenditure	-	72	1,141	2,464		New library presently under construction. District pays \$1.50 per capita under regional system.
Population						
\$ Per Capita			0.35	0.57	0.46	
CAMROSE, ALTA.						
\$ Expenditure	10,951	11,280	12,038			City and province supports library with grants. City also pays operating costs. In 1972 city grant was \$10,000.
Population	8,892	8,903	8,988			
\$ Per Capita	1.23	1.27	1.34		1.28	
WETASKIWIN, ALTA.						
\$ Expenditure	5,489	8,086	8,895			City provides grant towards operation.
Population	6,456	6,586	6,510			
\$ Per Capita	0.85	1.23	1.37		1.15	

POLICE AND BYLAW ENFORCEMENT SERVICES

Municipal responsibility for the provision of police and bylaw enforcement services varies greatly among the five main jurisdictions considered in this study. Great variation is also present among municipalities in each jurisdiction. Some perspective on these variations has already been provided in Chapter 4. The present discussion focuses on the sample municipalities.

A measure of the level of police servicing (by police and bylaw enforcement officers) has been included. The aforementioned Interlake study in Manitoba recommends a performance standard for police of 1.5 officers per 1,000 population. In some cases, in the N.W.T., information necessary to compile this index was not available because of the regional nature of the R.C.M.P. service. Also, the absence of financial contracts with the municipalities limits the need to have precise figures. However, where information is presented on service levels, it is possible that part of the force attends to regional, rather than solely municipal policing.

Further interpretative difficulties are present in the N.W.T. The adequacy of the level of municipal policing by the R.C.M.P. has been brought into question recently by several of the N.W.T. municipalities. The main complaints are that there should be larger municipal R.C.M.P. detachments and more assistance from the R.C.M.P. in the policing of certain bylaws. Concerning the latter point, R.C.M.P. municipal detachments in the provinces generally provide some assistance with bylaw enforcement but information suggests that the level of assistance can

vary greatly. The only situation where the municipal police force covers all bylaw enforcement is where the municipality operates its own force, such as in Camrose.

Full-time bylaw enforcement officers have been appointed at various times by the more established N.W.T. municipalities, but only Yellowknife has developed this function to a large extent. Fort Smith is presently the only other N.W.T. municipality making expenditures in this area. Every N.W.T. municipality escapes any financial responsibility for R.C.M.P. services, but it has been indicated that this advantage is balanced in part by loss of municipal control and apparently lower levels of service by comparison with the provinces.

Table 6B-6 inventories the information on costs and service levels. (See also Figure 6B-3.)

The N.W.T. municipalities certainly experience a much lesser financial burden in policing than the municipalities in the Prairie Provinces. On the basis of the few crude service level indices available, it is difficult to conclude that large variations in service level exist between the N.W.T. and provincial groups. The B.C. municipalities sampled here receive R.C.M.P. services similar to those in the N.W.T. The financial responsibility lies with the province, but there is no indication that the B.C. municipalities hold the same views as the N.W.T. municipalities in regard to the adequacy of the service.

The information presented in the table may be useful in indicating the levels of expenditure to be faced by the N.W.T. municipalities should they wish to buy more control of the R.C.M.P. servicing. Yellowknife

may expect a burden comparable to The Pas, which has to provide bylaw enforcement in addition to paying the R.C.M.P. contract. The figures for Fort McMurray indicate costs to be faced by Yellowknife if bylaw enforcement expenses can be avoided. The Camrose level for police expenditures embraces bylaw enforcement expenses. This would not be a good guide for Yellowknife if it wished to operate its own force since salaries and other costs would probably be much higher in the N.W.T. For the smaller N.W.T. municipalities, the level of expenditures that may be expected are found in the information presented for La Ronge, High Level and Hudson Bay. In all cases, revenues from fines will reduce these cost levels somewhat.

TABLE 6B-6

POLICE AND BY-LAW ENFORCEMENT SERVICES

MUNICIPALITY	PER CAPITA EXPENDITURES BY MUNICIPALITY				AVERAGE P.C. EXPENDITURE	R.C.M.P. OFFICERS	FULL-TIME BY-LAW ENFORCEMENT OFFICERS	OWN POLICE FORCE	POLICE PER 1,000 POPULATION (1972)	REMARKS
	1970	1971	1972	1973						
YELLOWKNIFE, N.W.T.										
\$ Expenditure	18,126	23,114	29,029							
Population	6,500	7,100	7,400							
\$ Per Capita	2.79	3.26	3.92	3.35	10	2	-	1.7	City pays only for by-law enforcement. R.C.M.P. force considered inadequate for city needs.	
HAY RIVER, N.W.T.					NOT APPLICABLE	9	-	-	2.6	Expect to have full-time by-law enforcement officer soon. Anticipating 3 more R.C.M.P.
FORT SMITH, N.W.T.										
\$ Expenditure	879	9,086	11,549							
Population	2,500	2,500	2,500							
\$ Per Capita	0.35	3.63	4.62	2.87	8	1	-	1.2	2 R.C.M.P. for town out of a force of 12. Others for highway patrol and regional duties.	
INUVIK, N.W.T.					NOT APPLICABLE	25			N/A	25 R.C.M.P. personnel based in Inuvik to serve the town and mainly the region.
PINE POINT, N.W.T.					NOT APPLICABLE	2	-	-	1.7	Adequacy of R.C.M.P. service in question. Officially two officers but generally only one.
FORT SIMPSON, N.W.T.					NOT APPLICABLE	2	-	-	N/A	R.C.M.P. covers region in addition to village. By-law enforcement by secretary-manager.
HIGH LEVEL, ALTA.										
\$ Expenditure	22,401	31,862	25,282	34,463						
Population	2,004	2,004	1,621	1,600						
\$ Per Capita	11.18	15.90	15.60	21.54	16.06	3	-	-	1.5	R.C.M.P. standard contract R.C.M.P. assist with by-law enforcement.

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TABLE 68-6
POLICE AND BY-LAW ENFORCEMENT SERVICES

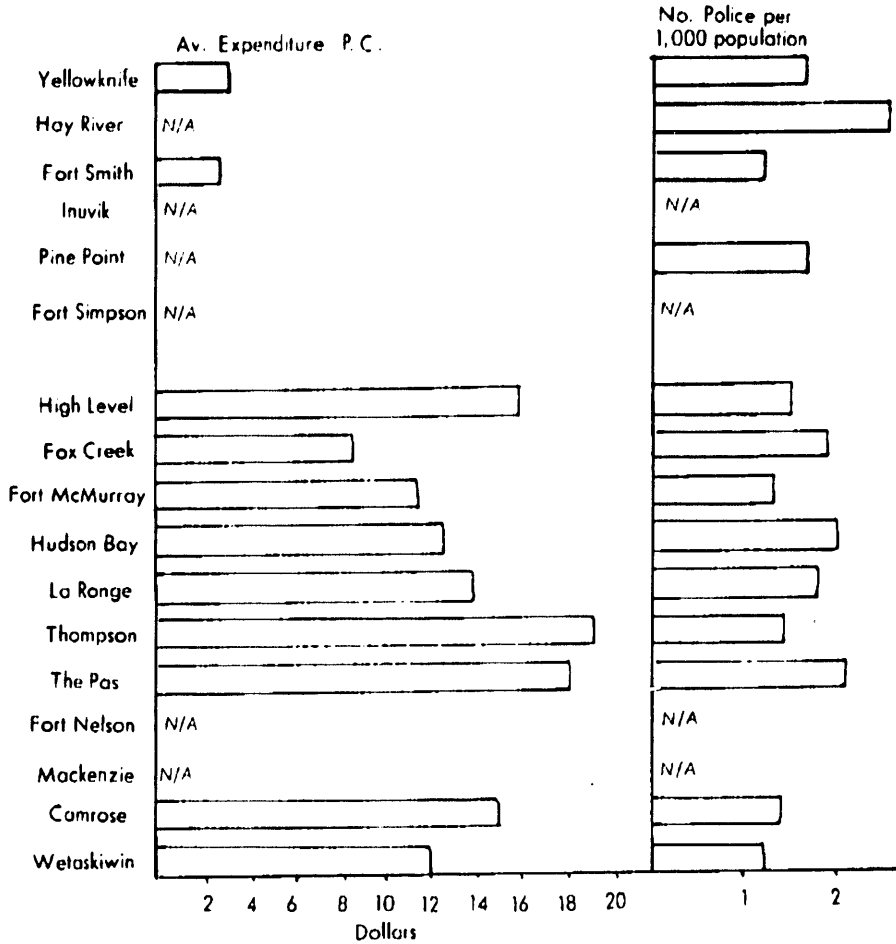
MUNICIPALITY	PER CAPITA EXPENDITURES BY MUNICIPALITY			1973	AVERAGE P.C. EXPENDITURE	R.C.M.P. OFFICERS	FULL-TIME BY-LAW ENFORCEMENT OFFICERS	OWN POLICE FORCE	POLICE PER 1,000 POPULATION (1972)	REMARKS
	1970	1971	1972							
POX CREEK, ALTA. \$ Expenditure Population \$ Per Capita	Provincial Responsibility	12,837 1,514 8.48			8.48	3			1.9	1972 cost split 40-60 with province. Town share will rise in future years. Town provides residence and office building. R.C.M.P. enforce by-laws.
FORT McMURRAY, ALTA. \$ Expenditure Population \$ Per Capita	64,039 6,300 9.85	79,241 7,000 11.32	100,721 7,600 13.23		11.56	10			1.3	Town pays 50% of cost on first 5 men, 75% of cost per man of remainder. Town pays mileage expense, provides office support.
HUDSON BAY, SASK. \$ Expenditure Population \$ Per Capita	21,883 2,000 10.94	24,349 1,955 12.45	29,338 2,028 14.47		12.63	4	-	-	2.0	Town pays for three men. Province pays for one man on account of large population in surrounding area.
LA RONGE, SASK. \$ Expenditure Population \$ Per Capita	13,262 1,100 12.06	15,003 1,100 13.64	17,621 1,100 16.02		13.90	2	-	-	1.8	Town pays for two men; has benefit of total seven man force serving district.
THOMPSON, MAN. \$ Expenditure Population \$ Per Capita	285,054 17,000 16.77	383,158 18,953 20.22	408,240 19,001 21.49		19.49	28	-	-	1.4	Standard R.C.M.P. contract (50% cost per man on first 5, 75% of cost on remainder)
THE PAS, MAN. \$ Expenditure Population \$ Per Capita	91,869 6,100 15.06	128,005 6,800 18.82	146,793 7,000 20.97		18.28	13	2	-	2.1	Standard R.C.M.P. contract; plus 2 by-law enforcement officers; and part-time meter maids.

TABLE 6B-6

POLICE AND BY-LAW ENFORCEMENT SERVICES

MUNICIPALITY	PER CAPITA EXPENDITURES BY MUNICIPALITY				AVERAGE P.C. EXPENDITURE	R.C.M.P. OFFICERS	FULL-TIME BY-LAW ENFORCEMENT OFFICERS	OWN POLICE FORCE	POLICE PER 1,000 POPULATION (1972)	REMARKS
	1970	1971	1972	1973						
FORT NELSON, B.C.					NOT APPLICABLE	N/A	-	-	N/A	By-law enforcement duties shared by village officials
HACKENZIE, B.C.					NOT APPLICABLE	9			N/A	9 man R.C.M.P. force serves townsite and surrounding district.
CANROSE, ALTA.										
\$ Expenditure	124,324	129,611	148,262							
Population	8,892	8,903	8,988							
\$ Per Capita	13.98	14.56	16.50		15.01	-	-	13	1.4	Own force. No need for by-law enforcement staff.
VETASKIWIN, ALTA.										
\$ Expenditure	58,874	77,399	93,792							
Population	6,456	6,586	6,510			8	-	-	1.2	Present force felt by city to be understaffed. It also serves Indian reserve 8 miles away. By-law enforcement by R.C.M.P. currently suffering from lack of manpower.
\$ Per Capita	9.12	11.75	14.41		11.76					

Figure 6B- 3
POLICE AND BYLAW ENFORCEMENT SERVICES:
AVERAGE ANNUAL EXPENDITURE PER CAPITA
AND SERVICE LEVEL INDEX, SELECTED MUNICIPALITIES *



* See relevant text and tables for detailed interpretation.

PUBLIC WORKS

The maintenance of roads, streets and sidewalks tends to be a service area where municipalities receive assistance from the provincial or territorial governments. In most cases, the municipalities incur such public works expenditures initially and recover a portion of the cost later through grants. Complications are present, however, mainly in regard to direct provincial responsibility for maintaining all or portions of, major provincial highways running through municipalities. (Details of these arrangements were given in Chapter 4.) Such varying responsibilities for different expenditure items are hidden within the per capita expenditure figures used in the analysis of service level and costs. The influence of this is difficult to isolate without very detailed data. In the absence of such data, it is assumed that the influence is of the same magnitude for each municipality. The constraint placed on the interpretation by this assumption should always be borne in mind.

In addition, it should be noted that all the senior governments provide capital assistance in addition to assistance with operating and maintenance expenditures. Naturally this will affect the actual costs of delivering these services. It is only in extreme cases, such as for Fort Nelson, B.C., that this influence may be appreciated readily. Usually it is buried in the general finances of the municipality and is very difficult to quantify.

Further difficulties arise in the interpretation of data on public works because of varying accounting practices from municipality to mun-

unicipality. It has proved impossible to obtain a useful and reliable breakdown by sub-categories to indicate the level of expenditures on roads, sidewalks, snow and ice removal, etc. The service area is probably best treated as consisting simply of 'public works,' road maintenance being the major sub-category in most cases. Street lighting is not included here, but is treated in a separate section of this chapter.

Per capita expenditure data and several crude service level indices relating to public works for a selection of municipalities is presented in Table 6B-8.

Public works is a very complex function to analyze in service level terms. Influences on expenditure levels include: total road and street mileage in relation to population; the ratio of paved to gravel roads; population density; sidewalk mileage in relation to population; and appropriateness of investment in public works in relation to real needs or other spending priorities.

Some perspective on the analytical problems involved may be gained by reference to data from the economic survey of local government service levels undertaken by the Ontario government's municipal finance branch (November 1973). The study focused on several large Ontario municipalities. Service level for both roadways and sidewalks was measured in terms of mileage per thousand of population. Unit cost for the service was calculated by dividing the annual operating expenditure per 1,000 of population by the service level (in miles per 1,000 of population) (Table 6B-7).

Concerning the roadways of the municipalities represented in this

TABLE 6B-7

(PUBLIC WORKS)

DATA ON ROADWAYS AND SIDEWALKS FOR
SELECTED ONTARIO MUNICIPALITIES

Roadways:

Municipality	Population (1972)	Service Level *	Unit cost *
Cornwall	45,000	2.77	10,500
Kingston	59,000	1.79	11,000
North York	527,000	1.47	10,700
Ottawa	285,000	1.78	16,600
Sault Ste. Marie	78,000	5.25	5,700

Supplementary data:

	Density (Population per acre)	Miles of residential road per 1,000 pop.
North York	9.66	1.25
Sault Ste. Marie	1.34	3.68

* See text for explanation. Data is approximated.

Sidewalks:

Municipality	Service Level (miles of sidewalk per 1,000 pop.)
Cornwall	1.62
Kingston	2.49
North York	1.19
Oakville	0.89
Orillia	1.63
Ottawa	1.38
Sault Ste. Marie	1.84

SOURCE: Measures of Local Government Service Levels, An Economic Survey,
Ontario Ministry of Treasury, Economics and Inter-governmental
Affairs, Municipal Finance Branch, November 1973.

sample study, Sault Ste. Marie ranks highest on the basis of miles of roads per 1,000 population. North York ranks the lowest by this measure. The variance can possibly be partially explained by the difference in population densities. North York ranks very high on this count and Sault Ste. Marie ranks very low. Two completely opposed inferences could be drawn from the data. It could be stated that North York is providing inadequate service. On the other hand, it could be contended that North York probably better utilizes its roads. Perhaps the best conclusion that can be drawn is that North York, having a higher population density, requires fewer miles of road per thousand population. Sault Ste. Marie, with its low population density, must provide more miles of roads per 1,000 population. Thus, the element of appropriateness has to be recognized. Such recognition has wider application for the present study because of the presence of a much higher proportion of gravel to paved roads found in smaller municipalities, especially in northern areas. Also in these areas sidewalks tend to receive much less attention than is the case in the large municipalities, so much so, that statistics are often not kept on sidewalk mileage.

Small municipalities in the more settled parts of the provinces do indulge in higher levels of sidewalk servicing. One study (mentioned in the street lighting discussion) identified recommended local performance standard values for sidewalks and streets for small municipalities in the Interlake region of Manitoba. These are: 2.5 miles of sidewalk per 1,000 population; and 3 miles of paved road per 1,000 of population. Going by the Ontario data, these appear to be rather high

levels. With this information, the following interpretation of the data in Table 6B-8¹ (See also Figure 6B-4).

The N.W.T. municipalities exhibit great variability in terms of per capita expenditure and service level indices for the public works function. Fort Smith has spent much more than any other N.W.T. municipality, although it shows a declining trend for the years sampled. In the process, it appears to have achieved relatively high service levels but with concomitant high unit costs. Attention is drawn to the data for the three southern provincial municipalities - Camrose, Wetaskiwin and Fort Saskatchewan. Fairly close similarities are present for these three municipalities and it is suggested that this group may constitute a good discussion base for intra-sample comparisons. Compared to this group, Fort Smith is seen to possess lower levels of service and higher unit costs. The inference that may be drawn is that Fort Smith would encounter much higher unit costs if it decided to achieve the service level present for the southern municipalities. One factor which may be raising the level of unit costs for Fort Smith is its dispersed nature, giving a low density function.

Inuvik is characterized by a decidedly low level of service for very high unit costs. The prosperous, planned town of Pine Point exhibits precisely the opposite characteristics. This is possibly because of the capital intensive approach, resulting from the ability,

¹It should be stressed that whereas the Ontario data on unit costs refer only to roadways expenditures, the unit costs in the present analysis cover all public works expenditures. Road expenditures generally form the bulk of public works expenditures, however. In addition, it should be noted that the unit cost used in this study refers to total road mileage rather than only paved roads.

in the beginning, to plan ahead safely. Hay River and Yellowknife expend relatively low levels on this function, but by comparison with the southern Alberta group, they still appear to have to spend more for a lesser level of service.

The three Alberta new towns - High Level, Fox Creek and Fort McMurray, also exhibit varied performance of the public works function. High Level has been giving increasing consideration to public works through the years but the data on unit costs and the paved road index indicates that much potential exists to further increases. Fox Creek has also been making rapid strides in recent years. Here the investment effort has been greater (witness the relatively high unit costs borne) and a higher level of service has resulted. Fort McMurray is in a position similar to Yellowknife and Hay River in relation to the southern Alberta group. There are signs, however, that greater effort has been made in Fort McMurray, although the gain in service level is not marked according to the indices used here.

Hudson Bay appears to benefit from having had a good network built up in the past which now requires limited maintenance. It is, of course, possible that the low unit costs indicate declining priority being given to public works. The data for La Ronge appear to have been distorted significantly on account of the presence of gravel roads only.

Fort Nelson deserves extended comment in connection with the public works function. The discussion may serve to provide more insight into the actual conditions glossed over by the crude data used here. While it was under unorganized area status, the province paved almost all of

the community's roads, giving it, on paper at least, a very high level of service. It is known from field visits, however, that the pavement is very narrow and this is a cause for dissatisfaction. By some paradox, Fort Nelson has a very low level of servicing in terms of sidewalks. These are virtually non-existent and the situation is also a source of great irritation. In addition, Fort Nelson's expenditures on the public works function are artificially low in relation to other B.C. municipalities. Because of its rapid growth and shaky financial footing in the early years of its incorporation, the community has been absolved of its responsibility for the traditional municipal share of costs for maintaining major provincial thoroughfares in the municipality. If this concession was not present, per capita costs would be about doubled and thus brought more into line with the average situation in the provinces.

Thompson is an affluent municipality and can easily afford to put out large expenditures in most service areas. High unit costs result, but the service level is rated high on the basis of a field visit, higher than is even indicated by the index of miles of paved road.

The Pas has been incurring some of the highest per capita expenditures on public works of all the municipalities sampled here. The available statistics indicate an extremely low level of service but very high unit costs. It is known from field inspection and through interviews with municipal officials, that the road and street situation in The Pas is rated very poor, so much so, that the town is presently the subject of a special street improvement program (under the D.R.F.E. agreement) costing almost \$2 millions. The statistics used here may

exaggerate the problem somewhat. It is obvious from simple calculations from the town's street plan that total road mileage within the community is at least 30 miles. It must be assumed that the balance of road miles in excess of the 14.37 miles reported is in the form of very basic earth roads. It may be anticipated that once the improvement program is completed, maintenance costs will be reduced somewhat or the same level of effort will effectively result in a higher quality of service.

In summary, it may be stated that there appears little doubt that the N.W.T. municipalities can expect to be faced with significantly higher unit costs if higher levels of public works service are accorded the priority found for this service in the average small municipality in southern Canada. The cost mix, by emphasizing labour input, ensures such an outcome. It could be speculated that special northern conditions obviate the need to place a high expenditure priority on this service. Traffic volumes do not normally attain the levels found in more settled southern areas. The long, hard winters eat into the amount of benefit that could be derived from good road surfacing and an extensive sidewalk system. The harsh winter weather would also bring consistently high demands for maintenance of the system. As an example of different priorities in the North, it may be noted that Inuvik's main need for improved road services is seen by some, in terms of dust suppressants rather than extensive and expensive paving programs.

If these different priorities in the north are valid, the present scheme of government assistance to municipalities in the N.W.T. (40% of road and sidewalk maintenance costs) seems to be a suitable one.

It is comprehensive, lacking complex cost-sharing conditions, and provides a good level of incentive for municipalities to raise service levels. However, the scheme could possibly bear the introduction of a mechanism which would recognize the marked cost differentials between municipalities, particularly those between Inuvik and the other municipalities in the Great Salve Lake region. At the same time, it is difficult to be categorical on the effectiveness of government assistance in this area. The N.W.T. per capita expenditure values are probably increased as much by the presence of this assistance as any additional northern costs that it is expected to offset. Assistance in this area may therefore benefit from further sophistication and monitoring to ensure its effectiveness.

TABLE 6B-B
PUBLIC WORKS

MUNICIPALITY	1970	1971	1972	1973	Average	Miles of Paved roads (p) Gravel roads (g) Sidewalks (s)	Miles of road per 1000 pop. (1972)	Unit Cost 1972	Miles of Paved road per 1000 pop. (1972)	Remarks
YELLOWKNIFE, N.W.T.										
Expenditure \$	140,175	157,723	173,696			10.2 (p)				
Population	6,500	7,100	7,400			20.2 (g)				
p.c. Expend. \$	21.57	22.21	23.47		22.42		4.1	5,726	1.4	
HAY RIVER, N.W.T.										
Expenditure	57,293	56,872	57,890	135,333		6.7 (p)				
Population	2,900	3,200	3,560	4,000		8.5 (g)		3,839	1.9	Less over-head allocation to utility fund
p.c. Expend.	19.73	17.77	16.52	33.83	21.96		4.3			
FORT SMITH, N.W.T.										
Expenditure	127,209	107,781	75,131			7.0 (p)				
Population	2,500	2,500	2,500			5.0 (g)		6,250	2.8	
p.c. Expend.	50.88	43.11	30.05		41.35		4.8			
INUVIK, N.W.T.										
Expenditure	46,074	107,836	89,820	107,823		12 (s)				
Population	3,080	3,300	3,500	3,850				8,300		No paved roads
p.c. Expend.	14.96	32.68	25.66	28.01	25.33	1.2 (s)	3.1			
PIKE POINT, N.W.T.										
Expenditure		16,027				4.5 (p)				
Population		1,200				4.3 (g)		1,800	3.8	
p.c. Expend.		13.36			13.36	.6 (s)	7.5			
FORT SIMPSON, N.W.T.										
Expenditure		50,393								
Population		1,000								
p.c. Expend.		50.39			50.39	8 (est.) (g)	8.0	6,298		No paved roads

TABLE 60-B (Continued)

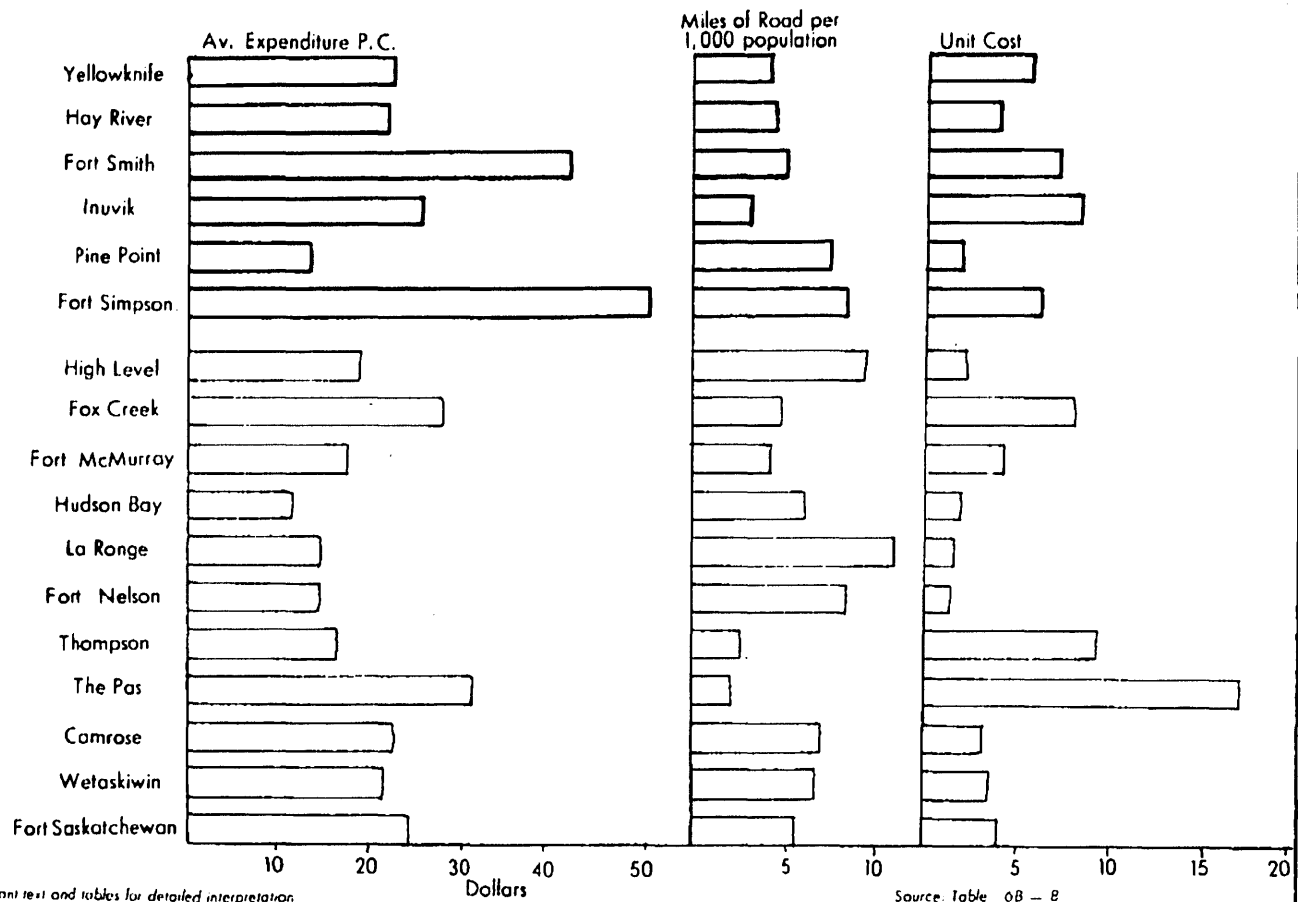
PHYSICAL WORKS

MUNICIPALITY	1970	1971	1972	1973	Average	Miles of Paved roads (p) Gravel roads (g) Sidewalks (s)	Miles of road per 1000 pop. (1972)	Cost (1972)	Miles of Paved road per 1000 pop. (1972)	Remarks
HIGH LEVEL, ALBERTA										
Expenditure \$	17,265	33,616	32,930	48,389		2.0 ()				
Population	2,004	2,004	1,621	1,600		13.07 (g)	9.4	2,700	1.4	
p.c. Expend. \$	8.62	16.77	20.31	30.24	18.99	3.0 (s)		*		
FOX CREEK, ALBERTA										
Expenditure	18,499	32,852	56,819			2.90 (p)				
Population	876	1,253	1,514			4.15 (g)	4.7	8,060	1.9	Excellent roads
p.c. Expend.	21.12	26.22	37.53		28.29					
FORT McMURRAY, ALBERTA										
Expenditure	94,125	111,181	165,641			17.47 (p)				
Population	6,500	7,000	7,600			14.03 (g)	4.2	4,138	2.3	
p.c. Expend.	14.48	15.88	21.79		17.38					
HUDSON BAY, SASK.										
Expenditure	26,247	21,103	21,791			7.29 (p)				
Population	1,900	1,955	2,028			4.85 (g)	6.0	1,820	3.6	
p.c. Expend.	13.81	10.79	10.75		11.78					
LA RONGE, SASK.										
Expenditure	12,629	15,703	19,170							
Population	1,100	1,100	1,100			11.0 (g)	11.0	1,590		
p.c. Expend.	11.48	14.28	17.43		14.40					
FORT NELSON, B.C.										
Expenditure			29,330			19.00 (p)				
Population			2,500			2.00 (g)	8.4	1,400	7.6	Provincial Dept. of Hwy pro- vides much as- sistance
p.c. Expend.			11.73		14.19					

TABLE 6B-8 (continued)

MUNICIPALITY	PUBLIC WORKS				Average	Miles of Paved road gravel roads sidewalks	Miles of road per 1,000 pop. (1972)	Unit Cost (1972)	Miles of Paved road per 1000 pop. (1972)	Remarks
	1970	1971	1972	1973						
THOMPSON, MANITOBA										
Expenditure \$	220,514	260,033	446,872		40.22					Excellent roads
Population	17,000	18,953	19,001		7.8	2.5	9,410	2.1		
p.c. Expend.\$	12.97	13.72	23.52	16.34	20.99					
THE PAS, MANITOBA										
Expenditure	197,946	173,443	251,969		.25					Roads situation rated very poor. Subject of \$2 million improvement program (DREE)
Population	6,190	6,800	7,000		14.12	2.1	17,150			
p.c. Expend.	32.45	25.51	36.00	31.32	3.9			0.04		
CAMROUSE, ALBERTA										
Expenditure	202,513	212,235	189,821		34.10					
Population	8,892	8,903	8,988		28.70	7.0	3,010	3.8		
p.c. Expend.	22.77	23.84	21.12	22.58						
WETASKIWIN, ALBERTA										
Expenditure	137,687	143,704	139,238		21.56					
Population	6,456	6,586	6,510		21.53	6.6	3,470	3.3		
p.c. Expend.	21.33	21.82	21.39	21.51						
FORT SASKATCHEWAN, ALBERTA										
Expenditure	131,028	153,688	138,150		20.00					
Population	5,302	5,734	6,328		15.20	5.6	3,910	3.2		
p.c. Expend.	24.71	26.80	21.83	24.65						

Figure 6B-4 PUBLIC WORKS *



* See relevant text and tables for detailed interpretation.

Source: Table 6B-8

GENERAL GOVERNMENT SERVICES

General government services is treated here as including the legislative component (mayor and council fees and expenses) and the general administrative component (administration, financial management, assessment, taxation). Certain other expenditures are classified within this category, such as elections and referendums, conventions and delegations, advertizing, promotion and publicity, and grants to local organizations. The latter mixed bag is generally insignificant by comparison with the major general administrative component but sometimes miscellaneous additions can assume important dimensions.

When dealing with relatively small municipalities, general government services can prove rather risky to analyze. It is an easy matter for portions of the administrative costs of other departments to be carried by general administration, making strict comparisons hazardous. For example, in some situations where the municipal office is part of a multi-purpose complex, general administration might cover the utility costs of the adjacent fire department. This is the case in both Mackenzie and Fort Smith. The magnitude involved in such cases are generally not very great, but they can be when utility system administration costs are treated as general costs. In some municipalities, water utility billing may be the responsibility of private operators. This is the case, for instance, in Camrose and Wetaskiwin, and means that these municipalities do not need to employ staff to cover this function. In some situations, the municipality may operate the water utility but have adopted a system where charges are recovered, if at

all, through general taxation. Thompson, for instance, makes no specific charge for water and sewer services. These comments can also apply in the cases of sewer service and garbage collection charges.

The costs of assessment to municipalities can vary greatly depending on the government assistance available. In the N.W.T., the government has provided most of the assessment services to municipalities. In the past, however, the N.W.T. government has levied an undetermined charge for this service on the municipalities through a reduction in the amount of the unconditional grant. Villages in B.C. escape financial responsibility for assessment but other municipal units, including districts must cover their own costs. The Alberta government normally assists with 25% of a municipality's assessment costs. In Saskatchewan, the province carries out the assessment function for all municipalities with populations of less than 15,000 free of charge. In Manitoba the municipalities bear the full cost of assessment, but the work is carried out by government personnel.

Municipalities often run enterprises other than utilities, entailing further input of resources in total or in part from general administration. The prime example of this is the land development activity in Yellowknife, Inuvik and Hay River. Most southern municipalities do not undertake such activity with the intensity found in the three N.W.T. municipalities. Municipal housing is another enterprise which attracts some municipalities and not others.

To sum up these points, it may be appreciated that the category of general government services most clearly presents in microcosm, the

problem common to this whole study. This is the difficulty of separating out the varying responsibilities and presence of sub-functions from municipality to municipality. Obviously, this plays havoc with attempts to set out in a meaningful way the relationship between per capita expenditures, service levels and unit costs. The following analysis is presented with this reservation in mind.

Service level is measured in terms of number of general government employees per thousand of population. This approach follows that taken in the Ontario service level study. Similarly, the measure of unit costs is taken from that study and is calculated by dividing expenditures per 1,000 population by the service level. Perspective data for selected large Ontario municipalities are presented in Table 6B-9. It should be noted that these data refer to general administration expenditures only. The data employed in the present study refer to total general government expenditures as extracted from financial statements. These are presented in Table 6B-10. (See also Figure 6B-5)

Per Capita Expenditures: Considering only average per capita expenditures, it may be noted that most of the N.W.T. municipalities are at higher levels than their provincial counterparts. There is little difference between Yellowknife, Hay River and Fort Smith. The large difference between Inuvik and Fort Simpson is surprising. The low Inuvik total may be explained in part by the absence of any substantial municipal involvement in the water and sewer utility. This is also the case in Fort Simpson, however. Perhaps the best explanation of the higher level of expenditures lies with diseconomies of scale or

TABLE 6B-9

GENERAL ADMINISTRATION EXPENDITURES
AND UNIT COSTS - SELECTED ONTARIO MUNICIPALITIES. 1972.

MUNICIPALITY	EXPENDITURES (\$)	POPULATION	EXPENDITURES P.C. (\$)	NO. OF EMPLOYEES	SERVICE LEVEL (employees per 1000 pop.)	UNIT COST* (\$)
BELLEVILLE	551,432	34,767	15.86	56	1.6	9,674
CORNWALL	445,073	45,720	9.73	33	0.6	15,720
KINGSTON	1,086,386	59,190	18.35	53	0.9	20,892
NIAGARA FALLS	921,346	65,623	14.03	46	0.7	20,939
NORTH YORK	2,001,909	527,531	3.79	158	0.3	11,911
OAKVILLE	533,126	64,477	8.27	36	0.5	17,198
OSHAWA	1,602,045	92,000	17.41	92	1.0	18,414
OTTAWA	4,519,665	284,746	15.87	256	0.9	18,151
ST. THOMAS	295,776	25,545	11.57	51	2.0	5,477
SAULT STE. MARIE	913,166	77,968	11.71	179	2.3	5,045
WATERLOO	286,926	38,818	7.39	39	1.0	7,551

*Unit cost = $\frac{\text{Expenditure per 1000 population}}{\text{Service Level}}$

Source: Ontario, Min. of T.E.I.A., Municipal Finance Branch, November 1973, p. 10, 11.

initially high expenditures on account of the early stage of incorporation. The latter explanations would fit Pine Point, if explanations were required. It has already been suggested, however, that the low level of expenditure for Pine Point may reflect the simple administrative environment where Cominco is the major customer.

Diseconomies of scale appear to have worked against High Level in recent years as the population has declined. At the same time, Fox Creek appears to be on its way to achieving economies of scale. Rapid growth on a larger scale and from a larger base has apparently brought demands for greater general government expenditures in Fort McMurray. The Quebec study mentioned in other sections indicates that at some point between the population range of 5,000 and 10,000, there is a turning point beyond which municipalities really strive for higher general government service quality and quantity.

Hudson Bay has seen a steady growth in expenditure levels over the years sampled. It is interesting to contrast Fort Simpson and La Ronge. Both communities were on the verge of substantial growth during the period samples, aside from possessing other similar characteristics. La Ronge at this time, however, was a well-established municipality with a fairly stable administrative pattern which appeared to be manageable by only one employee. The administration of the village is carried out from this employee's home, cutting some expense in this area, and that the employee has lived in the community for a long period. Fort Simpson, which lacks these personnel and other advantages, incurs much higher levels of expenditure, especially in the area of salaries, office

operation, travel and general office expenses.

Fort Nelson lies in about the same per capita expenditure range as the N.W.T. municipalities, suggesting relatively similar characteristics. This is borne out by the per capita expenditure breakdown which follows later in this section.

Thompson, by far the largest municipality in the sample considered here, is in the size range where economies of scale and efficiencies can be realized. Its level is close to that present for the moderately sized municipalities in the Ontario sample. It could be conjectured that attainment of this level is aided, as at Pine Point, by the dominance of Inco in the local municipal scene.

The low level of per capita expenditure present for The Pas is purely due to an accounting practice where the general government department has recovered some of its costs from other departments, mainly utilities. This procedure can only be detected through the financial statements and the important influence it may have on measures of this service is indicated in Table 6B-11. When the recoveries are included in the total rather than deducted from it, a different pattern emerges. The Pas then exhibits per capita expenditures similar to that found for the N.W.T. municipalities and the northern provincial municipalities experiencing fairly rapid growth. Scrutiny of the financial statements of the other municipalities in the present sample revealed no such practice of deducting recoveries. However, the statements could still hide recovery situations which had been effected somewhere between the operating ledger and the netted data in the final financial

TABLE 6B-11

THE PAS, MANITOBA - DETAIL OF PER CAPITA EXPENDITURES
ON GENERAL GOVERNMENT SERVICES

PER CAPITA EXPENDITURES (\$)

	1970	1971	1972	1973	Ave.
RECOVERIES DEDUCTED	8.20	8.67	11.53	14.02	10.61
RECOVERIES INCLUDED	22.95	23.44	28.97	32.56	26.98
POPULATION USED	6100	6800	7000	7500	

NO. OF EMPLOYEES IN GENERAL GOVERNMENT (JANUARY 1974) - 7.

SERVICE LEVEL (No. of employees per 1000 population)

1972: 1.0; 1973: 0.8.

(assuming no change in no. of employees)

UNIT COST

	1972	1973
RECOVERIES DEDUCTED	11,530	17,600
RECOVERIES INCLUDED	28,970	40,700

Source: Financial Statements and Budgets; Interviews with municipal officials.

statements. In the analysis of service levels and unit cost, it is assumed that no major inconsistencies between the municipalities result from such procedures, and that general government expenditures reflect just these expenditures and no others.

The three southern Alberta municipalities exhibit relatively similar patterns and are close to the average for the provinces of \$17.21 per capita. (This average does not take into account Mackenzie or the revised values for The Pas.) The N.W.T. overall average is \$25.54. The District of Mackenzie in B.C. has been consistently making the highest level of expenditures on general government of all the municipalities studied. A large part of the explanation for its position relates to problems associated with its extremely rapid growth. In its early years (late sixties) the district failed to acquire good expertise capable of handling the growth problems. The operation of the district's finances suffered, and in recent years it has meant high audit and legal expenses to rectify the situation. High turnover of staff, and subsequent relocation costs have also been an expensive function of the very rapid growth. Part of the explanation also lies with the need, common in the N.W.T., to pay higher than normal salaries and other special employee benefits. It is expected that these explanations do not tell the whole story. Mackenzie, by B.C. standards, is a relatively affluent municipal unit which can easily bear high administration costs.

Per Capita Expenditures Breakdown: (Table 6B-12) Salaries and employee benefits comprise the most important element in the cost mix for general government services. It may be noted, however, that this component is a

smaller proportion of the total expenditures for the N.W.T. municipalities compared with most of those in the provinces. It is also interesting to note that the per capita level of expenditures on salaries and employee benefits combined is not markedly different between the two groups. Perhaps this reflects standard rates to the clerical labour which is responsible for the bulk of expenditures in this sub-category.

Within the N.W.T., Yellowknife, Hay River and Fort Smith are at relatively similar levels whereas differences are more marked for the other municipalities. It is difficult to explain the extreme range among Pine Point and Inuvik and Fort Simpson.

Generally, the N.W.T. municipalities compare quite favourably with the expenditure levels for salaries and benefits encountered in certain of the northern provincial municipalities such as Fort Nelson, Mackenzie and The Pas (by revised figures). Fort McMurray, Hudson Bay and La Ronge exhibit low levels by comparison with the rest of the sample, and especially with the other northern municipalities.

Interpretation of these differences is very difficult. The levels may be explained by cases of either over-generosity or real value for money spent. Efficiency measurement in general government operations is a very subjective area, deemed too contentious to merit further elaboration here.

Some variability between municipalities is present for legal and audit expenditures but differences are not significant, with the notable exception of Mackenzie. The varying responsibility for assessment is reflected in the expenditure breakdown. It is difficult to

place too precise an interpretation on this sub-category's pattern since great differences can also occur when the year sampled is also the year during which a general reassessment of all properties is undertaken.

Operation of the municipal office tends to be more expensive, in per capita terms, in the N.W.T. municipalities by comparison with most southern municipalities. The exceptions are Fort Nelson and Mackenzie. The difference does not generally amount to more than \$2 per capita, however.

The N.W.T. municipalities rank near the average in terms of expenditures on the legislative (mayor and council) component of general government services. They do tend to spend greater amounts on advertising, stationery, postage and telephone but the difference is again not very substantial.

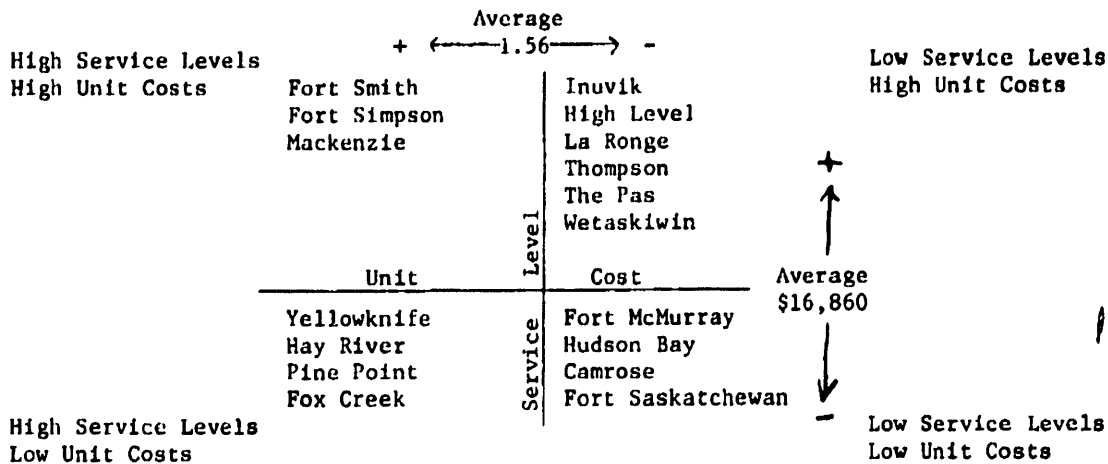
It is difficult to isolate significant sub-categories of relatively high expenditures for general government services in the N.W.T. It appears that the higher levels accrue through increases spread across the whole list of sub-categories with the greatest contributors being possibly office operation, travel and telephones.

Service Levels and Unit Costs: To facilitate the analysis, averages were calculated for the sample used in the present study and also for the Ontario sample. Each municipality was then allocated to a slot in a four class spectrum according to their position in relation to the averages. The results are presented in Table 6B-13. The major assumption in this schematic analysis is that each municipal employee is of the same worth. The analysis does not take account of the

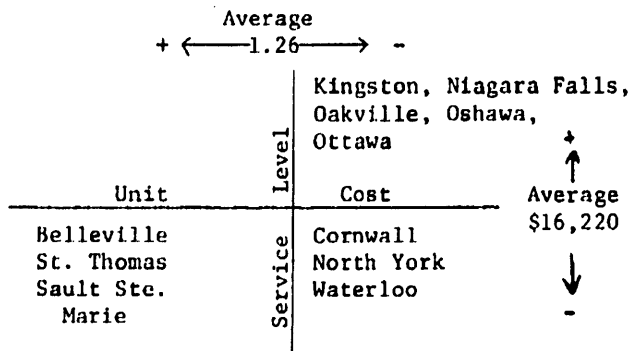
TABLE 6B-13

SCHEMATIC ANALYSIS OF SERVICE LEVEL AND UNIT COST DATA

Present study: General Government Expenditures



Ontario study: General Administration Expenditures



Sources: Tables 6B-9; 6B-10

substitution of machines for employees. It is not clear whether this would result in increased unit costs or in greater efficiency.

If the role of machines is ignored, most of the N.W.T. municipalities emerge from the comparison in a favourable position. Yellowknife, Hay River and Pine Point have high service levels and low unit costs. Fort Smith and Fort Simpson, with high service levels and high unit costs, occupy a rung lower. Inuvik fares the worst of all of the N.W.T. municipalities, having low service levels and high unit costs.

It is somewhat surprising to see Inuvik in the same class as Thompson, an affluent municipality which can well afford a high quality of service in all municipal functions. The other municipalities in Inuvik's class are more like Inuvik in that they are relatively poor and have difficulty meeting adequate service levels.

Wetaskiwin, unexpectedly, falls in the same category as Inuvik. It may be useful to refer to a comparison between it and Camrose and Fort Saskatchewan. All three have relatively similar average per capita expenditure levels yet Wetaskiwin exhibits significantly lower service levels and significantly higher unit costs. That at least part of the explanation lies in the other two municipalities being better off financially is evidenced by differences in assessment total. In 1973, Wetaskiwin had an assessment of about \$13.4 million, while in Fort Saskatchewan and Camrose total assessment was \$20.0 and \$30.5 million respectively. From field visits and interviews, Camrose is known to be actively seeking more staff at present, while Wetaskiwin badly needs more staff.

A more sensitive measure of efficiency could result in a change in position for many of the municipalities, possibly even a reversal of position for some.

Nothing conclusive can be taken from the discussion in this section other than an appreciation of the many pitfalls which have to be faced in any analysis of this very complex service area.

TABLE 6B-10

GENERAL GOVERNMENT

MUNICIPALITY	1970	1971	1972	1973	Average	No. of emp. per 1000 pop. 1972	Unit cost 1972	Remarks
YELLOWKNIFE, N.W.T.								
Population	6,500	7,100	7,400			2.02		15 employees
Per Capita \$	23.94	28.55	31.81		28.10		15,749	
HAY RIVER, N.W.T.								
Population	2,900	3,200	3,500	4,000		1.71		1 sec.-treas. 5 others
Per capita	28.98	23.28	25.77	29.55	26.90		15,071	
FORT SMITH, N.W.T.								
Population	2,500	2,500	2,500			1.60		1 sec.-treas. 3 others
Per capita	24.06	30.79	33.44		29.43		20,901	
INUVIK, N.W.T.								
Population	3,080	3,300	3,500	3,850		1.03		2 admin 2 clk/stenos
Per capita	15.34	17.32	21.41	21.65	18.93		20,020	
PINE POINT, N.W.T.								
Population			1,200			2.5		1 admin 2 clk/stenos
Per capita			20.78		20.78		8,064	
FORT SIMPSON, N.W.T.								
Population			1,000			3.0		1 sec.-treas. 2 clk/stenos
Per capita			31.17		31.17		10,390	
HIGH LEVEL, ALBERTA								
Population	2,004	2,004	1,621	1,600		1.5		1 admin & asst. 1 clk/steno
Per capita	16.10	16.51	25.55	32.18	22.50		21,453	
FOX CREEK, ALBERTA								
Population	876	1,253	1,514			2.0		1 sec.-treas. 2 clk/stenos
Per capita	21.69	17.91	19.39		19.66		9,695	
FORT McMURRAY, ALBERTA								
Population	6,500	7,000	7,600			1.4		1 admin. 10 clk/stenos & bookkeeper
Per capita	12.83	16.42	17.47		15.57		12,478	

TABLE 6B-10
GENERAL GOVERNMENT

	1970	1971	1972	1973	Average	No. of emp. per 1000 pop. (1972)	Unit cost 1972	Remarks
HUDSON BAY, SASK.								
Population	2,000	1,935	2,028			1.5		1 admin & 1 asst
Per capita \$	13.87	16.89	18.42		16.39		12,280	1 clk/steno
LA RONCE, SASK.								
Population	1,100	1,100	1,100			.9		1 sec.-treas.
Per capita	12.62	13.57	18.42		14.87		20,467	
FORT NELSON, B.C.								
Population			2,500	2,750		2.0		1 admin. & 1 asst.
Per capita			27.20	29.10	28.15		13,600	3 steno/bookkeepers
THOMPSON, MANITOBA								
Population	17,000	18,953	19,001			.6		1 city manager
Per capita	13.44	13.58	14.17		13.73		23,616	1 sec.-treas. & 10 assts.
THE PAS, MANITOBA								
Population	6,100	6,800	7,000	7,500		1.0		1 town admin. (figures
Per capita	8.20	8.67	11.53	14.02	10.61		11,530	1 sec.-treas. low due to 5 clk/stenos accounting procedure)
CANROSE, ALBERTA								
Population	8,892	8,903	8,988			1.4		1 city mgr; 1 city clerk
Per capita	18.60	20.34	19.71		19.55		14,079	1 treas.; 1 asst. 1 assessor; 1 asst. 7 clerks
WETASKIWIN, ALBERTA								
Population	6,456	6,586	6,510			.9		1 city mgr
Per capita	15.55	16.78	19.04		17.12		21,156	5 clk/stenos
FORT SASKATCHEWAN, ALBERTA								
Population	5,302	5,734	6,328			1.4		1 town comm.
Per capita	16.68	18.88	17.06		17.54		12,185	1 town admin.; 1 asst 6 clk/stenos
MACKENZIE								
Population	2,000	2,300	3,300	4,300		1.8		6 employees
Per capita	46.96	49.72	40.41	43.00	45.02		22,450	

TABLE 6B-12

BREAKDOWN (GENERAL GOVERNMENT)

		Salaries	Employee Benefits	Sub- Total	Legal & Audit	Asses- ment	Office Operation	Mayor & Council	Travel, Convention & P.R.	Adver- tizing	Stationery, Postage & Telephone	Other	Total
YELLOWKNIFE	1970	7.88	.22	8.00	1.61	1.56	1.64	1.58	3.32	.49	1.13	4.50	23.94
	1971	8.49	.58	9.07	1.22	1.20	2.74	1.21	3.95	.50	1.63	7.15	28.55
	1972	13.82	.45	14.27	1.10	.32	2.02	1.91	3.21	.74	1.92	6.45	31.81
	1973												
	Ave	10.09	.41	10.50	1.31	1.02	2.13	1.56	3.49	.57	1.56		28.10
HAY RIVER	1970	9.65	3.77	13.42	1.33	2.23	5.84	1.63	1.43	.49	N/A	4.34	28.98
	1971	8.20	2.73	10.93	2.08	.85	4.30	1.45	3.19	.61		1.79	23.28
	1972	8.20	2.98	11.18	1.74	.77	4.64	1.53	2.26	2.00		3.76	25.77
	1973	10.13	2.59	12.72	1.94		3.35	1.41	3.14	1.37		8.01	29.55
	Ave	9.04	3.01	12.06	1.77	.96	4.53	1.50	2.51	1.12			26.90
PT. SMITH	1970	7.86	2.02	9.88	.80	0	1.25	1.09	4.62	1.07	2.13	3.21	24.06
	1971	9.33	2.32	11.65	.48	.24	1.56	1.42	1.57	.94	2.23	10.58	30.79
	1972	12.33	.52	12.85	.71	.08	6.01	.72	2.75	2.33	2.52	5.00	33.44
	1973												
	Ave	9.84	1.62	11.46	.66	.11	2.94	1.08	2.98	1.45	2.29		29.43
INUVIK	1970	6.12	.75	6.88	1.20	.18	1.25	.83	.55	.17	1.29	3.01	15.34
	1971	6.25	.63	6.88	1.06	.47	1.63	.72	.27	.37	1.49	4.60	17.32
	1972	7.89	.85	8.74	1.17	.49	1.95	.77	1.59	.43	1.78	4.49	21.41
	1973	9.01	.85	9.86	1.84	.32	.79	.50	2.27	.89	1.55	3.84	21.65
	Ave	7.32	.77	8.09	1.32	.32	1.40	.71	1.17	.47	1.53		18.93
PINE POINT	1970												
	1971												
	1972	9.55	N/A	9.55	.20	0	2.33	1.02	1.35	.35	3.25	1.88	20.78
	1973												
	Ave												
PT. SIMPSON	1970												
	1971												
	1972	13.00	.47	13.47	0	0	6.24	.88	2.63	.08	3.96	3.46	31.17
	1973												
	Ave												

TABLE 6B-12

BREAKDOWN (GENERAL GOVERNMENT)

		Salaries	Employee Benefits	Sub- Total	Legal & Audit	Assess- ment	Office Operation	Mayor & Council	Travel, Convention & P.R.	Adver- tizing	Stationery, Postage, & Telephone	Other	Total
HIGH LEVEL	1970	4.95	1.40	6.35	1.30	.19	1.90	.28	.92	.19	1.13	3.49	15.77
	1971	5.28	1.20	6.48	.73	.11	1.61	.84	.47	.22	1.35	4.68	16.51
	1972	8.92	1.22	10.15	1.53	.20	2.18	1.77	.48	.05	2.08	7.12	25.55
	1973	12.80	1.20	14.00	4.80	3.07	2.04	2.69	.55	.05	2.49	1.84	32.18
	Ave	7.98	1.26	9.25	2.09	.89	1.93	1.40	.61	.13	1.76		22.50
FOX CREEK	1970	8.97	1.76	10.73	4.07	.47	1.88	0	2.67	0	2.29	.99	21.69
	1971	7.88	.85	8.73	2.46	.26	1.56	0	.81	.33	2.03	1.72	17.91
	1972	10.45	1.90	12.35	1.54	.54	1.39	0	.15	.19	1.86	1.37	19.39
	1973												
	Ave	9.10	1.50	10.60	2.69	.42	1.61	0	1.21	.17	2.06		19.66
PT. McMURRAY	1970	4.15	1.99	6.14	.36	.23	.82	.44	.66	.12	.81	3.15	12.83
	1971	5.35	2.30	7.65	1.11	.22	1.40	.94	.74	.22	1.36	2.97	16.42
	1972	6.13	3.89	10.02	1.00	.21	1.77	.92	.89	.27	1.88	1.46	17.47
	1973												
	Ave	5.21	2.73	7.94	.82	.22	1.33	.77	.84	.20	1.35		15.57
HUDSON BAY	1970	5.45	1.02	6.47	.91	0	1.38	1.91	.33	0	1.36	1.50	13.72
	1971	6.85	1.46	8.31	2.08	0	.83	2.30	.43	0	1.42	1.52	17.03
	1972	6.69	1.53	8.22	1.15	0	.92	2.18	.52	.37	2.68	2.39	19.36
	1973												
	Ave	6.33	1.34	7.67	1.38	0	1.05	2.13	.43	.12	1.82		16.70
LA RUNGE	1970	6.43	.44	6.87	.93	0	.55	.43	.05	0	1.19	2.61	12.62
	1971	7.20	.46	7.66	.73	0	.55	1.08	.34	.18	1.27	1.86	13.57
	1972	7.47	.99	8.46	.77	0	.55	1.60	0	.15	1.18	5.27	18.47
	1973												
	Ave	7.03	.63	7.66	.81	0	.55	1.04	.13	.11	1.21		14.87
PT. NELSON	1970												
	1971												
	1972	21.83						2.87	1.56			.94	27.20
	1973		12.74	12.74	1.49	0	4.20	2.91	2.44	0.78	3.41	1.12	28.15
	Ave												

* general admin.

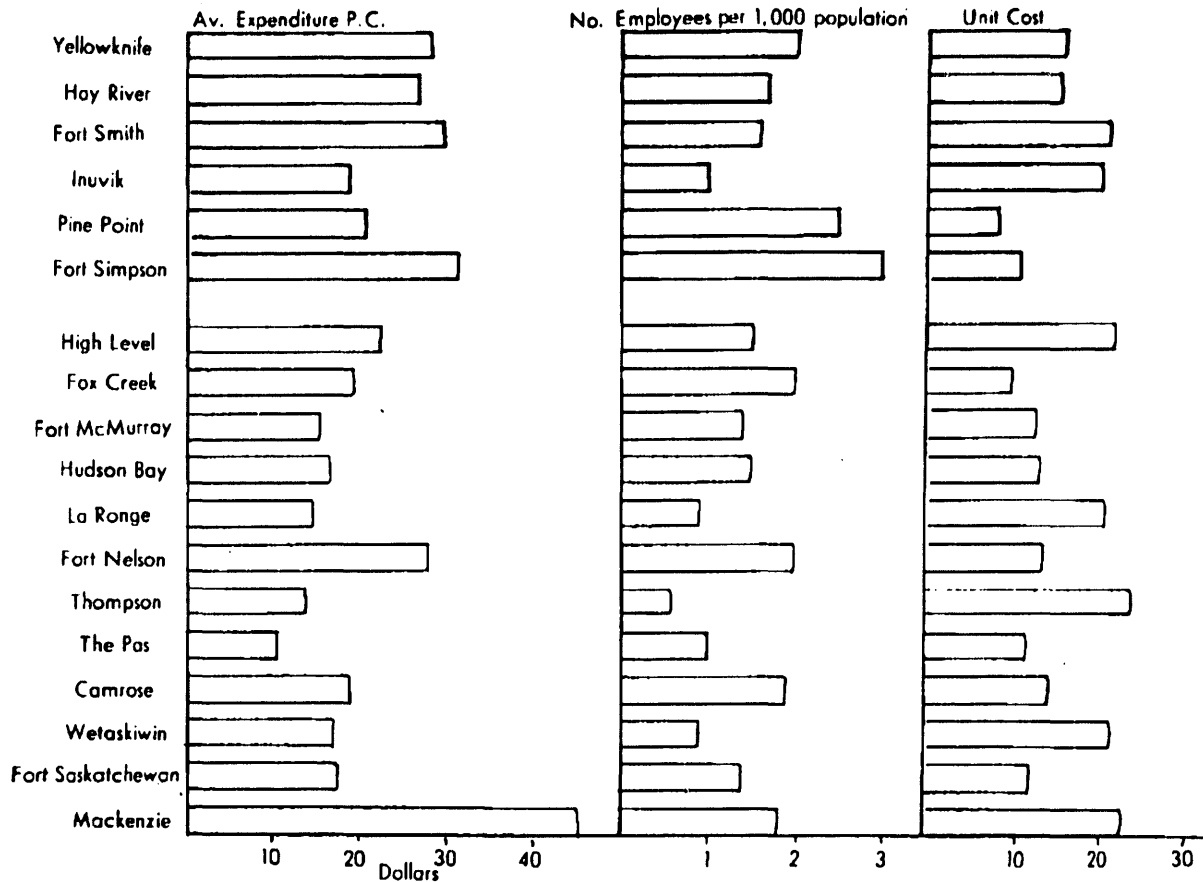
TABLE 6B-12

BREAKDOWN (GENERAL GOVERNMENT)

		Salaries	Employer Benefits	Sub- Total	Legal & Audit	Assess- ment	Office Operation	Mayor & Council	Travel, Convention & P.R.	Adver- tising	Stationery, Postage & Telephone	Other	Total
1/ THOMPSON	1970	7.28		7.28	.91	1.40	.76	.47	.26				
	1971	8.13		8.13	1.24	1.42	.71	.95	.24			3.49	13.44
	1972	10.43		10.43	1.24	2.12	.53	1.00	.45			3.71	13.58
	1973											.99	14.17
	Ave	8.61											
1/ THE PAS	1970	7.72		7.72	1.73	1.77	.48	1.31	.13				13.73
	1971	7.78		7.78	2.31	1.57	.46	1.23	.15			2.41	8.20
	1972	10.63		10.63	2.31	1.71	.23	1.14	.57			2.92	8.67
	1973											3.41	11.53
	Ave	8.61		8.61	2.12	1.68	.39	1.23	.28				9.47
CAMROSE	1970	5.98	3.92	9.90	.55	3.27	.57	1.72	.34	0	.84	1.54	18.60
	1971	6.64	3.92	10.56	.65	3.50	.74	1.87	.34	0	.91	1.72	20.34
	1972	7.01	3.05	10.06	.76	3.70	.43	1.81	.33	0	.92	1.70	19.71
	1973												
	Ave	6.54	3.63	10.17	.65	3.49	.58	1.80	.34	0	.89	1.65	19.55
METASKIWIN	1970	5.45	2.92	8.37	.65	.14	1.79	1.21	.73	.11	1.39	1.11	15.55
	1971	5.77	3.47	9.24	.61	.19	1.70	1.29	.82	.14	1.25	1.59	16.78
	1972	6.43	3.99	10.42	1.01	.35	1.77	1.88	.91	.15	1.17	1.27	19.04
	1973												
	Ave	5.88	3.46	9.43	.76	.23	1.75	1.46	.82	.13	1.27	1.32	17.12
FT. SASKATCHEWAN	1970	5.85	3.08	8.93	.38	.25		.95	1.99	.46	1.65	2.08	16.68
	1971	6.31	3.18	9.49	.40	.48	.47	1.29	1.65	.53	1.92	2.65	18.88
	1972	6.25	2.86	9.11	.43	.15	.58	1.15	1.51	.67	1.54	1.82	17.06
	1973												
	Ave	6.14	3.04	9.18	.40	.29	.53	1.13	2.09	.55	1.70	2.18	17.45
MACKENZIE	1970		17.02	17.02	7.33	1.37	4.79	4.38	2.38	-	4.62	5.08	46.96
	1971		19.59	19.59	3.67	2.41	5.12	3.82	4.18	.60	4.05	6.30	49.72
	1972		16.99	16.99	3.85	4.55	4.49	2.29	1.52	.65	3.27	2.68	40.41
	1973		22.21	22.21	3.13	3.07	3.02	2.05	2.77	1.54	3.04	2.16	43.00
	Ave		18.93	18.93									45.02

1/ budgeted break-down & actual total 2/ budgeted breakdown & total

Figure 6B-5 GENERAL GOVERNMENT SERVICES: SELECTED MUNICIPALITIES *



* See relevant text and tables for detailed interpretation

Source: Table 6B-10

RECREATION SERVICES

The provision of recreation services in most communities tends to be carried out by several bodies in addition to the municipal government. Private clubs, school boards and other community groups may be so active in this field as to lessen the need for municipalities to provide facilities. These variations and the competitiveness of the private recreation market, may have a very real influence on the level of municipal expenditures on recreation services.

The financing of recreation services can be as complex as its administration. Generally, supplementation of user charge revenues by general revenue is normally unavoidable in the financing of municipal recreation services. This burden may be lessened by contributions from senior governments towards operating and capital expenditures. Details on this form of support were mentioned in Chapter 4 of this report. Such assistance is also provided by governments to non-municipal bodies engaged in the recreation service area. In addition, the latter organizations and municipalities may receive assistance from important industries associated with the community. This level of assistance can vary depending on how good a corporate citizen the company may be. These highly variable financing practices, in addition to the varying degree of municipal involvement in recreation service provision, serve to complicate any analysis of municipal per capita expenditures.

Levels of service are also difficult to assess. Quantity of services provided is one indicator and this approach receives emphasis here. The content of recreation programming may also be a factor,

however. Most recreation budgets stress the provision of physical facilities such as arenas, swimming pools, and ball diamonds, but some may emphasize arts and crafts for instance. Non-physical recreation programs have not featured prominently in the municipalities considered in this study. The resultant emphasis on physical facilities, most of which are used only by a portion, and sometimes a minority, of the municipal population, raises further difficulties in evaluating the value received for tax monies paid by various segments of the population.

Several special northern features have to be taken into account when considering municipal recreation expenditures and revenues. The long distances between municipalities preclude the regional delivery of recreation services. This approach is now common in all the Western Provinces, and grant systems are attempting to foster it further in recognition of the economies of scale. The relative remoteness of the northern municipalities and the presence of the long dark winters tend to generate a greater real need for recreation services. These may help in part to counteract the 'cabin fever' syndrome found in such areas. A relatively low percentage of the northern population, native or non-native, has developed strong roots in the municipalities, raising the need for greater municipal participation in the recreation field. In the north, with its large native populations, recreation tends to be viewed, to a stronger degree than in the south, as a vehicle for integration. It is similarly viewed as a means of counteracting potentially high juvenile delinquency rates. These forces result in relatively high priorities being placed on recreation.

The distinctive socio-economic structure of the N.W.T. municipalities has repercussions not only on program content but also on the level of user charges. There generally exists a very wide income spectrum whereby an intermediate level of charge may be a bargain to some but a real burden and obstacle to others. The problem of charging is compounded by the general feeling that too many things in the north are too expensive, despite the fact that higher wages and salaries compensate certain groups. Because of these features, common to the north, it is difficult to quantify the variations attributable to additional northern costs of operating such services. However, an attempt is made to provide some perspective on this critical aspect through a detailed consideration of the costs of operating arenas and sports centre complexes in several municipalities. The following analysis is based on Table 6B-15 (expenditure and revenue per capita) and Table 6B-16 (arenas and recreation complexes). (See also Figure 6B-6.)

Most of the N.W.T. municipalities tend to spend more per capita on recreation than their provincial counterparts. Hay River and Inuvik, by 1973 data, ranked significantly above the levels in Yellowknife and Fort Smith. The high expenditures of the former two municipalities are accounted for primarily by their sports complexes. These facilities have been beset by design problems and general building deficiencies, which have proved costly to remedy. The more modest levels of expenditure found in Yellowknife and Fort Smith reflect well-established, and more conservative facilities and recreation programming, where maintenance problems have been ironed out or minimized. The assistance of Cominco

in providing recreation facilities at Pine Point has resulted in a very impressive list of recreation facilities for such a small community. Most of these facilities are provided through a recreation association, which in the year studied, received a very large grant from the company through the municipality. Without the grant, municipal per capita expenditures would have been at the more comparable level of approximately \$23. Fort Simpson provides a striking contrast to Pine Point. Because of other needs in the community, the level of priority that can be accorded to recreation at this stage of municipal development is low. From the inventory of recreation facilities (Table 6B-14) it is clear that Fort Simpson experiences a lower level of service than the other N.W.T. municipalities.

One striking feature of recreation expenditures in the N.W.T. municipalities has been the very rapid increase in Inuvik in contrast to the more stable patterns for the other large municipalities. The sports centre expenditures explain the dramatic increase at Inuvik. Such a centre makes a clear impact on expenditures. Unless the facility functions well, however, it must be doubted if a commensurate marked increase in service level is achieved.

The only other municipality with high levels of expenditure in the sample considered here is Fort Nelson. It should be pointed out that the major recreation facility, the community sports centre, is a regional facility. Technically, therefore, the recreation expenditures should be distributed over a larger population in recognition of the approximately 1,500 people who benefit from the facility but who reside outside Fort

Nelson's boundaries. Allowance for this factor would result in a 1973 level of per capita expenditures of about \$15.

It may be anticipated that with the imminent completion of its arena, Mackenzie will enter the range of expenditures found for the N.W.T. municipalities. Fort McMurray has been making very rapid strides in developing municipal recreation facilities in the past few years and in the most recent year exhibited a level comparable to those in the N.W.T. Like Mackenzie, Fort McMurray is a rapidly growing resource-based municipality striving to meet the varied and sophisticated demands of relatively wealthy populations.

The remaining municipalities sampled fall into two main groups. Those in the average range of about \$10 to \$15 per capita are relatively affluent and can readily afford the additional level of expenditure on recreation services. The other group of municipalities tend to exhibit per capita expenditure levels below \$10. For this group, financial resources for expenditure on recreation tend to be scarcer and only some of the demand may be met, usually with a lower level of service. Fox Creek may be an exception in this group. The companies associated with the community are known to have contributed significant amounts to recreation endeavours in the new town. In 1973, an artificial ice plant was installed and more improvements are due soon.

The extent to which the funding of municipal recreation services depends on general taxation is indicated in the ratios of recreation revenues to recreation expenditures. In most cases, in the N.W.T. and in the provinces, the dependence is considerable. Deviations from this

can be readily explained. The Pine Point figure is distorted by the large grant provided by Cominco. Without it, revenues would be very small. Fox Creek, for the years studied, provided only recreation services which were very inexpensive to operate and which could be easily recovered in large part by revenues.

The negligible revenues from Thompson's recreation operations is thought to be erroneous. It is unlikely that the adjusted value would produce much higher levels, however. User charges are relatively low and Inco effectively covers 55% of recreation operating costs.

The relatively high revenue/expenditure ratio in Fort Nelson is due to a large transfer of funds from the regional district. Without the transfer the ratio would be much lower.

It should be noted that no government grants for recreation are included in the ratio calculations for the N.W.T. municipalities. Operating grants currently stand at \$5 per capita and with capital project assistance in various years have contributed to push up expenditures and masked the influence of higher costs. Allowance for the high level of government assistance would probably place the N.W.T. municipalities in a relatively favourable net expenditure position by comparison with most of their provincial counterparts who do not receive high levels of financial assistance.

On the other side of the coin, it is generally agreed that the costs of operating recreation services is higher in the north. Much of the reason for the higher costs is the higher utility bills incurred by operating the major facilities such as sports/community centres or

arenas and also equipment maintenance. Some breakdowns of the cost of running such facilities are presented in Table 6B-16. Accounting differences presented problems in classifying expenditures. In addition, the varying nature of the facilities preclude direct cost comparisons, necessitating an emphasis on percentage breakdowns.

The available information indicates that the additional costs are a function not so much of just higher utility bills, but are due also to the relatively high wages and salaries that have to be paid to administrators and operators. As pointed out earlier, whenever specialized labour costs are an important component in the cost mix of a municipal service, significantly higher northern costs may be anticipated.

A government program has been set up to assist N.W.T. municipalities with utility costs, but it is still awaiting the necessary financial commitment. Consideration is presently being given to a much broader policy of assistance to municipalities with the operating expenditures. At a recreation seminar in 1972, some municipal officials suggested that a percentage of total operating expenditures should be employed.¹ Percentage levels of 30% to 35% were suggested although 50% was mentioned as possibly being a more realistic level. These constitute high levels of assistance by comparison with the provinces, where it is simply acknowledged that municipal recreation services should be heavily subsidized from general revenues. There are special conditions, as well as priorities, regarding recreation in the N.W.T. such as the small municipal populations, which limit the extent to which facilities can be

¹N.W.T.A.M. Recreation Seminar, Hay River, 1972.

utilized, and also there is the limited fund raising capabilities of the communities. Despite these special features, the proposed assistance levels in the N.W.T. appear to be very generous in comparison with those in the provinces.

In addition, certain problems may be anticipated by the use of a percentage basis for government assistance. Strict accounting and audit procedures may need to be instituted to prevent abuses of the scheme. One fixed percentage level may not be as suitable as a varying percentage which recognizes the different needs, capabilities and cost problems of individual municipalities at any given period. Care would have to be taken to avoid subsidizing inefficient management or poor design and planning of facilities. Ideally, some output measure of the level of recreation service activity should be sought in addition to unit cost data. Flexible incentive schemes could then be developed.

TABLE 6B-14
RECREATION FACILITIES

MUNICIPALITY	ARENA	CURLING RINK	OTHER	MANPOWER
YELLOWKNIFE, N.W.T.	-regulation size -artificial ice -seats 1,000	-4 sheets -artificial ice -attached to arena	Swimming Pool Ball Park, Tennis Courts, Latham Island Community Centre.	1 Recreation Director 3 Others full-time
HAY RIVER, N.W.T.	-200' x 85' artificial ice -seats 600 -minor hockey \$500-senior \$10.00 -poorly designed	-3 sheet artificial ice -In Recreation Complex -heavily used	1 Portable Pool Sports Complex	1 Recreation Director 3 Others
FORT SMITH, N.W.T.	-200' x 85' artificial ice -600 seats -390 people involved in hockey & skating -\$6/hr. for kids, \$12/hr for adults & schools	-3 sheet artificial ice -leased to club for \$3000/yr. -heavily used -cost to town about \$7000/yr.	-Portable Pool 60"x10"x4' -used May to October -\$50c public \$6/5 lessons -qualified lifeguard	1 Recreation Director (being 3 Others hired)
INUVIK, N.W.T.	-regulation size-artificial ice -fairly heavily used -cost shared with L.A.P. previously -details unclear	-6 sheet artificial ice -run by Recreation Management Committee-paid for by town	-1 Portable Pool -Sports Fields in School Yards	1 Manager 2 Caretakers 2 Labourers
PINE POINT, N.W.T.	-180' x 83' artificial ice -seats 450 -7 teams & 130 figure skaters	-3 sheet artificial ice -rented for \$1.00 to club which maintains & operates -\$25/person/league	-Portable Pool 25'x35'x3.5' -Softball Park & Tennis Court -other good facilities-labour, equipment & money from Cominco	1 Recreation Director 1 Arena Manager 1 Summer Casual Help
FORT SIMPSON, N.W.T.	-not regulation size -natural ice-seats 200 -60 minor hockey, no senior 30 in figure -fair usage-50c adult, 25c children -no charges for hockey	-2 sheet natural ice -town & club operated	-Portable Pool-not used -1 ball diamond, 1 tennis court -no outdoor rinks	Recreation Board

TABLE 6B-14

RECREATION FACILITIES

MUNICIPALITY	ARENA	CURLING RINK	OTHER	MANPOWER
HIGH LEVEL, ALTA.	-regulation ice size -natural ice (1973) -seats 1,200 -10 teams-charged \$5/hr or 20% of rate -heating system inadequate	-3 sheet natural ice -\$30.00/person -club gets 20% -town owns & operates	-Legion Hall-seats 400 -Portable Pool in Arena -not very successful -1 Ball Park on private Golf Course 2 mi. from town	Recreation Board 1 Arena Caretaker 1 Curling Rink Caretaker
FOX CREEK, ALTA.	-regulation size -artificial ice (1973) -seats 400 (too small for new arena) -14 teams & 105 in figure skating -\$10/hr. hockey-\$5/hr. figure \$30/yr./family	-3 sheet artificial ice -town owned & club operated -\$40/yr./person	-Small Community Hall seats 200 -2 Ball Diamonds-heavily used -Golf Course-1/2 finished town owned & operated	Recreation Board 1 Arena Manager
FORT McMURRAY, ALTA.	-regulation size-artificial ice -heavily used	-4 sheet artificial ice	-1 Swimming Pool-year round -Sports Grounds on School yards -several Church & Community Halls	
HUDSON BAY, SASK.	-185' x 85' natural ice (now installing ice plant) -heavily used -rates from \$5-\$20 + 25% for L.I.D. resident	-4 sheet artificial ice -\$45/yr./person	-2 Ball Diamonds & 1 Football Field -several Community Halls -Pool planned	
LA RONCE, SASK.	-not regulation size (140' x 70') -natural ice-seats 300 -heavily used - 15 teams not organized -no charge	-2 sheet natural ice -run by club	-Sports Fields in School Yards -1 Tennis Court -several Church Halls -no Pool	

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1

TABLE 68-14

RECREATION FACILITIES

MUNICIPALITY	ARENA	CURLING RINK	OTHER	MANPOWER
FORT NELSON, B.C.	-regulation size-artificial ice-seats 385 -225 in hockey-230 in figure skating -minor hockey \$10/hr.-senior 60¢ or \$100-figure \$7/hr. -used very heavily	-4 sheet artificial ice -operated & financed by town but in name of regional district -levy on surrounding area for all recreation	-Portable Pool - 4 1/2' deep -3 Ball Diamonds -1 Tennis Court - 1 Private Golf Course -use schools	1 Recreation Director 1 Arena Manager 2 Others
THOMPSON, MAN.	-85' x 185' artificial ice -seats 1,200 -800 in hockey - 350 figure skating -\$4/hr. Junior-\$10/hr. senior-used 20 hrs./day -Inco pays 55% of all recreation costs	-6 sheet artificial ice -rented for \$1,500/month -town maintains except for ice skating	-8 Ball Fields -3 Tennis Courts -2 Portable Pools -many other facilities	1 Recreation Director 15 Other Men
THE PAS, MAN.	-regulation size-artificial ice -heavily used -another is needed -higher rates for non-residents	-6 sheet artificial ice -town built-club operated	-Indoor Pool in School -3 Ball Diamonds -4 Private Halls -1 Tennis Court	1 Recreation Director 1 Recreation Assistant 1 Rink Manager 1 Pool Manager
CANROSE, ALTA.	-1 Old Arena-regulation size-natural ice -1 New Arena-regulation size-artificial ice -heavily used -no county financed support	-6 sheet artificial ice	-Indoor Heated Pool -2 Tennis Courts & Ball Diamonds -Track & Field Course -many other facilities	1 Recreation Director 1 Recreation Assistant 1 Other
WETASKIWIN, ALTA.	-1 regulation size 195' x 85' - artificial ice -seats 1,350 - built 1962 -600 in hockey - 220 figure skating -\$15/hr. or \$150/day-from \$5 to \$12.50/season ticket	-6 sheet artificial ice -inside recreation complex	-1 Pool -Outdoor Rinks -Ball Diamonds -etc.	1 Recreation Director 1 Recreation Assistant 1 Other
MACKENZIE, B.C.	-under construction	-4 sheet artificial ice -operated by town -charge club \$20,000/year	-Ski Hill -Beach -Parks, etc.	

TABLE 6B-15
RECREATION

MUNICIPALITY	EXPENDITURE PER CAPITA				AVERAGE	RECREATION REVENUE : EXPENDITURE				AVERAGE	AVERAGE RATIO REVENUE TO EXPENDITURE	
	1970	1971	1972	1973		1970	1971	1972	1973			
YELLOWKNIFE, N.W.T.												
Expenditure	125,277	129,225	151,286			28,025	31,079	41,983				
Population	6,500	7,100	7,400									
Expenditure p.c.	19.27	18.20	20.44		19.30	.22	.24	.28			.25	Ratio
HAY RIVER, N.W.T.												
Expenditure	46,613	105,811	125,147	133,783		12,223	40,173	32,164				
Population	2,900	3,200	3,500	4,000								
Expenditure p.c.	19.52	33.07	35.76	33.43	30.44	.26	.38	.26			.30	Ratio
FORT SMITH, N.W.T.												
Expenditure	54,787	56,746	53,193			14,815	10,691	19,004				
Population	2,500	2,500	2,500									
Expenditure p.c.	21.91	22.70	21.28		21.96	.27	.19	.36			.27	Ratio
INUVIK, N.W.T.												
Expenditure	19,807	37,269	70,572	123,574		10,520	4,958	1,091	48,444			
Population	3,080	3,300	3,500	3,850								
Expenditure p.c.	6.43	11.29	20.16	32.10	17.50	.53	.13	.03	.39		.27	Ratio
PINE POINT, N.W.T.												
Expenditure		98,885 ¹					86,610					
Population		1,200										
Expenditure p.c.		82.40			82.40		.88				.88	Ratio
FONT SIMPSON, N.W.T.												
Expenditure		3,014					0					
Population		1,000										
Expenditure p.c.		3.01			3.01						0	Ratio

¹Includes 570,862 - "Pine Point Recreation Association"

TABLE 68-15
RECREATION

MUNICIPALITY	EXPENDITURE PER CAPITA				AVERAGE	RECREATION REVENUE : EXPENDITURE				AVERAGE	AVERAGE RATIO REVENUE TO EXPENDITURE
	1970	1971	1972	1973		1970	1971	1972	1973		
HIGH LEVEL, ALTA.											
Expenditure	504	1,295	2,900	14,721		0	608	0	14,297		
Population	2,004	2,004	1,621	1,600		0	.47	0	1.01		.37 Ratio
Expenditure p.c.	.25	.65	1.79	8.89	2.90						
FOX CREEK, ALTA.											
Expenditure	2,049	4,255	4,484			1,683	4,483	3,217			
Population											
Expenditure p.c.	2.34	3.40	2.96		2.90	.82	1.05	.72			.86 Ratio
FORT McMURRAY, ALTA.											
Expenditure	27,304	92,843	161,757			10,661	31,209	27,641			
Population											
Expenditure p.c.	4.20	13.26	21.28		12.91	.39	.34	.23			.32 Ratio
HUDSON BAY, SASK.											
Expenditure	9,213	11,983	12,620			1,780	2,112	3,058			
Population	2,000	1,955	2,028								
Expenditure p.c.	4.61	6.19	6.22		5.67	.19	.18	.24			.20 Ratio
LA RONGE, SASK.											
Expenditure	4,449	3,255	5,146			0	323	450			
Population	1,100	1,100	1,100								
Expenditure p.c.	4.04	2.96	4.68		3.89	0	.10	.09			.06 Ratio
PORT NELSON, B.C.											
Expenditure			46,573 ¹	64,620 ¹				22,883	58,885		
Population			2,500	2,750							
Expenditure p.c.			18.63	23.50	21.07			.49	.91		.70 Ratio
MACKENZIE, B.C.											
Expenditure	36,359	40,935	59,364	57,081		18,219	23,096	28,672	24,990		
Population	2,000	2,300	3,300	4,300							
Expenditure p.c.	18.18	17.81	17.99	13.27	12.27	.50	.56	.48	.44		.50 Ratio

¹includes transfers from regional district (benefiting area)

TABLE 68-15

RECREATION

MUNICIPALITY	EXPENDITURE PER CAPITA				AVERAGE	1970	1971	1972	1973	AVERAGE	AVERAGE RATIO REVENUE TO EXPENDITURE
	1970	1971	1972	1973							
THOMPSON, MAN.											
Expenditure	186,437	247,144	300,531			676	586	0			
Population	17,000	18,953	19,001								
Expenditure p.c.	10.97	13.04	15.82	13.28	0	0	0			0	Ratio
THE PAS, MAN.											
Expenditure	63,260	68,486	65,280		12,005	21,529	19,685				
Population	6,100	6,800	7,000								
Expenditure p.c.	10.37	10.07	9.33	9.92	.19	.31	.30			.27	Ratio
CAMROSE, ALTA.											
Expenditure	124,866	144,738	141,686		39,492	33,837	35,407				
Population	8,892	8,903	8,988								
Expenditure p.c.	14.04	16.26	15.76	15.35	.32	.23	.25			.27	Ratio
WETASKIWIN, ALTA.											
Expenditure	87,430	97,556	90,489		21,227	16,786	22,692				
Population	6,456	6,586	6,310								
Expenditure p.c.	13.54	14.81	13.90	14.08	.24	.17	.25			.22	Ratio

TABLE 6B-16

RECREATION: ARENAS AND RECREATION COMPLEXES

MUNICIPALITY	ADMINISTRATION & LABOUR (WAGES)	UTILITIES	OTHER OPERATION & MAINTENANCE	MISCELLANEOUS	TOTAL	REMARKS
YELLOWKNIFE, N.W.T.						
-Arena						
Expenditure	36,384 ¹	17,766		4,177	58,327	Artificial ice; Arena size 235' x 110'
% of Total	62	30		7		
-Recreation Complex						
Expenditure	7,438 ¹	1,112	1,672	775	10,997	Lathan Island Community Hall
% of Total	68	10	15	7		
FORT SMITH, N.W.T.						
-Arena						
Expenditure	11,111 ¹		10,229	1,147	22,487	200' x 85' seats 600; artificial ice
% of Total	49		45	5		
HAY RIVER, N.W.T.						
-Recreation Complex						
Expenditure	43,184 ¹	34,947	9,107	29,923	117,161	Includes arena, 3 sheet curling rink, portable pool, pro-shop, & concession
% of Total	37	30	8	26		
INUVIK, N.W.T.						
-Recreation Complex						
Expenditure	24,948 ¹	8,808	19,266	5,832	58,854	Includes arena and 6 sheet curling rink
% of Total	42	15	33	10		
FORT McMURRAY, N.W.T.						
-Arena						
Expenditure	37,105 ¹	21,500	7,092	355	66,052	Regulation size, artificial ice
% of Total	56	33	11	1		
-Recreation Complex						
Expenditure	15,587 ¹	1,909	656	60	18,212	Community hall only
% of Total	86	10	4	-		
CAMROSE, ALTA.						
-Arena						
Expenditure	26,873 ¹	15,235		7,351	49,459	"new arena"; regulation size, artificial ice, Hourly rate \$16 (1973)
% of Total	54	31		15		

¹ Estimated salaries - 1/2 Recreation Director's

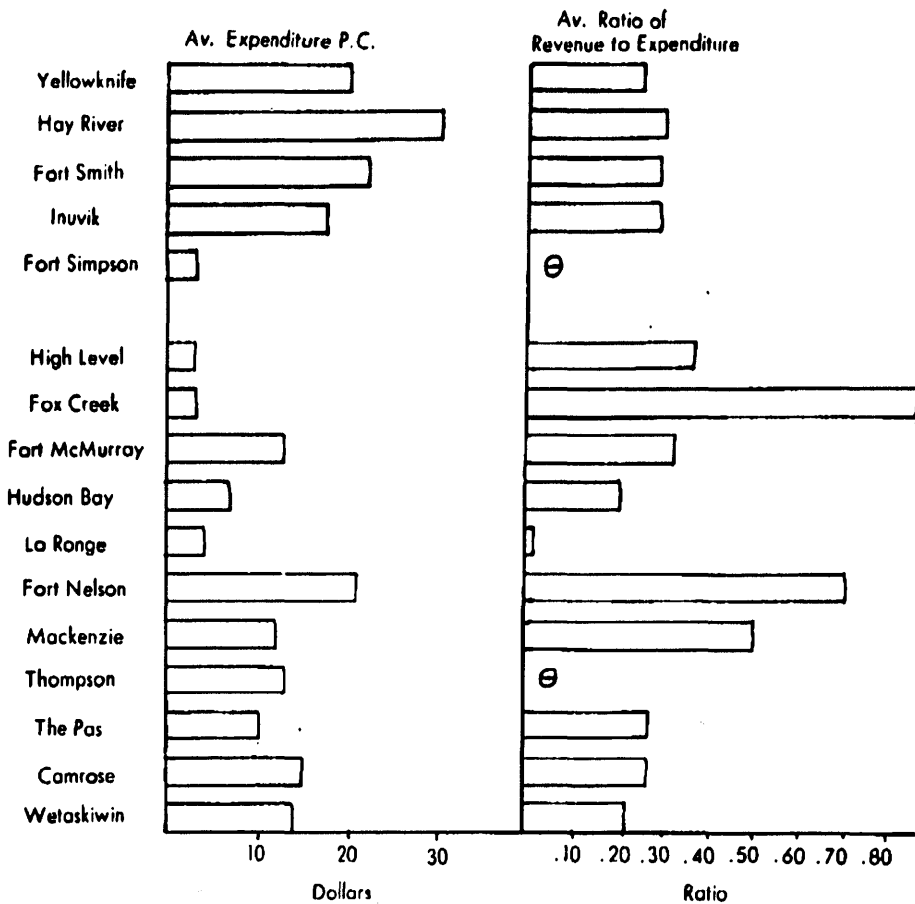
TABLE 6B-16

MUNICIPALITY	RECREATION: ARENAS AND RECREATION COMPLEXES					TOTAL	REMARKS
	ADMINISTRATION & LABOUR (WAGES)	UTILITIES	OTHER OPERATION & MAINTENANCE	MISCELLANEOUS			
WETASKIWIN, ALTA.							
-Recreation Complex							
Expenditure	27,549 ¹	7,786		9,945	45,280		Includes arena & 6 sheet curling rink
% of Total	61	17		22			
RED DEER, ALTA. (1973)							
-Arena							
Expenditure	30,120	10,840	5,570	2,220	48,750		Basic winter hourly rate \$10-\$16.50. Hourly cost of winter operation in 1973 estimated \$15/hour (1971-\$13/hour). Summer operation hourly cost \$17 in 1973 (1971-\$11.80/hour)
% of Total	63	22	10	5			
FORT SASKATCHEWAN, ALTA. (1973)							
-Arena							
Expenditure	36,786	11,274(materials & supplies)		9,456	57,430		Additional \$14,207 per annum debenture payments. Revenues on Arena \$21,111. (\$6-\$14.50/hour)
% of Total	64	19		17			
LEDDUC, ALTA. (1973)							
-Arena							
Expenditure					39,443		Hourly rates \$10-\$20/hour. Cost per hour \$13.00. Arena revenue \$6,155 Operating Deficit=\$11/hour
% of Total					100		

¹Estimated salaries - 1/2 Recreation Director's

Figure 6B- 6

**RECREATION SERVICES:
SELECTED MUNICIPALITIES ***



* See relevant text and tables for detailed interpretation

⊖ no revenues from recreation stipulated in financial statement

Source: Table 6B - 15

WATER AND SEWER SERVICES

Introduction: Expenditures on water and sewer systems consistently appear among the largest items in the budget of most N.W.T. municipalities. In this case it is a fruitful one in which to pursue both the pattern of operating expenditures and the influence of government capital project assistance in detail. The N.W.T. municipalities also receive assistance with the operating expenses of supplying water. This assistance is confined to subsidizing all the net municipal expenditures incurred in the trucked delivery of water to sections of the municipality not supplied by the piped system.

The truck system of providing water and sewer services is most definitely inferior to the piped mode. It is therefore in this area that significant intra-municipal variations in service levels may be most easily identified. This is an important factor in several of the N.W.T. municipalities as may be appreciated by consulting the 'population served' section of Table 6B-17.

Reliable and useful measures of service levels for piped water and sewer services are difficult to identify. Indices could be developed which would take account of physical and chemical differences in water quality, the frequency of breakdowns, or the fire-fighting qualities of the system. Rather than pursue such an involved course, this study has assumed broad service level comparability in terms of adequacy, and attention has been focussed on revenue patterns and expenditure variations.

In the following survey, continual account should be taken of the

inventory of system information in Table 6B-17. Population figures contained in this table have been estimated to correspond with the water consumption figures which generally relate to a period late in 1973 or early in 1974. Financial data for several municipalities for one year are presented in Table 6B-18. (See also Figure 6B-7.) The populations used in this particular table relate to the year of analysis, 1972.

Revenue and Expenditure: This survey does not include Inuvik, where the utilities system is owned and operated by N.C.P.C., and Fort Simpson, which during the period of this study did not operate its utility.

Although Pine Point and Thompson are included in the tables, the situation in these municipalities does not lend itself to comparisons with the other municipalities. The City of Thompson collects no utility revenue and operates only the distribution and disposal portion of the system.

Pine Point, in 1972, had a user charge for the sewer service only.

Cominco operates the water and sewer system and charges the village for the service, but the very high per capita expenditure for Pine Point cannot be explained in detail.² Camrose and Wetaskiwin do not operate their water system, but they have been included to provide more data on sewer systems. For all the municipalities, the term sewer system refers

¹Cominco bills the village monthly for equipment, labour, supplies, etc. at cost plus 20% overhead. It is believed that the very high expenditure level for Pine Point relates to the inclusion of capital construction, such as the installation of new lines, etc. in the village's monthly payments to Cominco. During 1972, the new treatment plant mentioned in the information table was under construction. Since Cominco's bills so intermesh operating and capital costs, it has not been possible to estimate what portion of the total expenditures are operating in nature.

only to the sanitary sewer system, and does not include storm sewers.

To allow for the inclusion of all municipalities on a comparable basis, and to keep the financial information as close as possible to the system information, revenues and expenditures have been given for 1972 only. A breakdown of the data into water and sewer has been shown for the municipalities where possible.

Revenue: The revenue total includes user charges, frontage taxes, correction fees and other minor revenue sources. In the case of Fort Smith, Hay River and Yellowknife, it also includes the water delivery grant provided by the N.W.T. government.

From Table 6B-18 it can be seen that the water and sewer user charge for most of the municipalities is in the \$13 - \$16 per month range, with Fox Creek and Mackenzie being the lowest with \$7 per month and \$7.80 per month flat rates, and La Ronge the highest with a \$17.50 per month charge. However, there is a considerable range in the total per capita revenue collected, from \$34.82 in Yellowknife to \$86.43 in Fort Nelson. This is in part attributable to the water and sewer frontage tax revenue which is generally earmarked for debt charges. The municipalities with the highest debt charges per capita, Fort Nelson, Mackenzie and High Level, also have the highest revenue collected per capita. The three N.W.T. communities have the lowest water and sewer debt charges per capita, and, correspondingly, low revenue per capita. The Pas and Fort McMurray have the lowest debt charge of the provincial municipalities and the revenue collected is in line with those in the N.W.T..

The revenue is, in most communities, within \$5 to \$6 per capita of the total expenditure. Fort Nelson ran a surplus of almost \$20 per capita due to the inflation of sewer revenues by a large frontage tax. Fort Nelson, however, feels it will need massive capital expenditures to upgrade their inadequate system, and the accumulated sewer system surplus will probably be used for this purpose. Yellowknife, on the other hand, has a deficit of over \$20 per capita, and The Pas, a deficit of \$12.65 per capita. The Pas and Yellowknife also collect the lowest per capita revenue, suggesting they could increase their rates to cover some of the losses without an undue burden being placed on consumers. Fox Creek's deficit of \$18.60 per capita is directly due to the high capital expenditures made that year.

Expenditures: The actual operating expenses of the water and sewer systems is determined by subtracting capital expenditures (where they were originally included) and debt charges from the total expenditure.

The range in per capita expenditures for the water and sewer system combined is from \$10.15 in Fox Creek to \$43.71 in Yellowknife. The operating expense naturally depends upon various aspects of the system (see inventory table), and upon the local terrain and climate.

Topography is most evidently a problem in Yellowknife, where several pumping and lift stations are required, the operation of which accounts for almost 25% of the total operating costs. In addition, Yellowknife must heat its water to prevent freeze-ups, but despite this, the repair of frozen lines is still a significant expense. Fort Smith has the next most expensive combined system at \$37.87 per capita. It

must heat its water and has a silting problem each spring, requiring up to 40% of the heated water to flush the system. Hay River's system appears to be relatively inexpensive compared to the northern-most communities and is, in fact, only a few dollars per capita higher than several provincial towns. However, over 1,000 of Hay River's 3,500 population is served by truck delivery, so the actual per capita cost of the system based on the population served would be considerably higher. Fort Smith and Yellowknife also have significant portions of their populations not served by the piped systems.

The least expensive systems, in Fox Creek and Mackenzie, are the newest, relatively well designed, and require little maintenance. The water source for Mackenzie requires almost no treatment. The older systems of Hudson Bay, La Ronge, and McMurray cost several dollars more per capita to operate, with La Ronge and McMurray also having heating costs. Unlike other municipalities which heat their water, McMurray does so to aid the treatment process rather than to prevent freeze-ups. High Level has a fairly new system but its water source requires considerable treatment. In addition to incurring costs due to the maintenance of an older system, The Pas also has extra treatment expense. The most expensive provincial water and sewer system is in Fort Nelson. Its system is poorly designed, there are numerous breaks each year and the lots served are scattered, requiring lengthy distribution lines. The whole system is inadequate for the current population, mainly because of the expensive additional pumping required to meet demand. Even with all these problems, however, Fort Nelson's system still costs

less per capita to operate than Yellowknife and Fort Smith.

Relatively small municipalities in northern Canada tend to be at a disadvantage in terms of unit costs of operating the water utility by comparison with large southern municipalities. This is indicated by some comparative unit cost data for a few of the sample municipalities and some large Ontario municipalities (Table 6B-19). The method used is based upon the Ontario government service level report mentioned in other parts of this chapter. Referring to the unit cost data, Fox Creek and Mackenzie, with their new well-planned systems, compare more than favourably with those in the Ontario sample. The older northern municipalities tend to face higher unit costs in operating the water system. Yellowknife's extremely high cost situation is brought out well in this comparison. Some doubt surrounds the very low Yellowknife consumption but the calculations indicate that relatively large upward revisions would not substantially alter the cost position of Yellowknife.

The water system operation is in all cases, more expensive than the sewer system. In the provinces, the per capita sewer expenses averaged about \$4, with Fox Creek the lowest at just over \$1 and Thompson, due to its size and better treatment, at \$6.45. However, in Yellowknife, where the re-circulating system cuts sewer flow, the cost is still \$7.48 per capita and is largely attributable to the need for lift stations. Fort Smith has the most expensive sewer system at \$8.32 per capita, despite the fact that almost 30% of the premises served with water are not served with a sewer outlet.

In the case of sewage treatment, all municipalities use some type

TABLE 6B-19

Unit Cost Data - Water System, 1972
Selected Northern and Ontario Municipalities

	Yellowknife	Fort Smith	Fort Nelson	Mackenzie	Fox Creek	High Level	Fort McMurray
\$ E	268,366	73,872	82,687	29,369	13,642	24,148	150,737
P	7,400	2,500	2,500	3,300	1,514	1,621	7,600
S	52	80	128	110	80	51	82
\$ C	1.9	1.0	0.70	0.22	0.31	0.80	0.66
	Belleville	Kingston	Niagara Falls		North York	Orillia	Sault Ste. Marie
\$ E	704,741	1,146,894	1,164,200		7,558,037	338,622	914,900
P	35,798	59,160	65,623		527,531	22,084	72,744
S	136.8	149.0	136.6		90.6	93.1	102.5
\$ C	0.39	0.28	0.36		0.43	0.45	0.34

\$ E = Total annual operating expenditures; P = Population Served;

S = Service Level - per capita consumption per day

\$ C = cost per 1,000 imperial gallons = $\frac{E}{\left(\frac{P \times S \times 365}{1,000}\right)}$

SOURCE: Financial statement analysis; Ontario Ministry of Treasury, Economics and Intergovernmental Affairs.

of lagoon method, except Thompson which also employs a treatment plant. It is, therefore, safe to assume that the quality of the treatment will be roughly the same for all municipalities. The only municipality in which sewage treatment was considered to be a problem was Fort Nelson. This was due to the inadequate capacity of the lagoons and also because the water intake is located downstream from the sewage outlet.

Capital Cost Analysis: Advantage has been taken of suitable financial data for water and sewer services to explore capital cost and assistance aspects of municipal servicing. Some of the results of the analysis of capital data are presented in Appendix A and Tables 6B-20 and 6B-21.

Referring, first of all, to Table 6B-18 and Figure 6B-7, it may be noted that the amount of annual debt charges exhibits a considerable range for the municipalities sampled. The main pattern that emerges, however, is the significantly lower per capita debt charges for the N.W.T. municipalities in comparison with the levels for the provincial municipalities. This outcome is primarily a function of the capital grants policy of the Government of the N.W.T. in providing the cost of the main water and sewer lines. The capital cost analysis presented in Appendix A indicates the considerable effect of the grants upon the debt charges of Hay River and Yellowknife as compared with the much smaller effect of grants for Mackenzie. These three communities have been analyzed in detail because each experienced rapid growth of their water and sewer systems during the same period.

While, the N.W.T. municipalities automatically receive a high level of government assistance with water and sewer projects, municipalities

in the provinces have to seek special treatment if assistance is required.

Until the recent introduction of the municipal waterworks assistance program in Alberta, municipalities in that province received little in the way of automatic assistance. The new town legislation permits municipalities to borrow large sums beyond that which would normally be allowed, but unless there are special financial problems the full amount of the loan, plus interest is repaid eventually. The Pas had to resort to the D.R.E.E. special area program to obtain funds for upgrading and expanding its system. Fort Nelson is also pinning its hopes on a new D.R.E.E. program to help meet massive expenditures to revamp its system. It is also interesting to note that much of Fort Nelson's problem relates to the debt that was assumed when it was incorporated as a village. Fort Simpson was also recently incorporated as a village but it has been given the water and sewer system debt-free and for a token sum by the government. La Ronge will also depend on special treatment to extend its system. This is predicated, in large part, by the fact that government, in the form of the new headquarters of the Department of Northern Saskatchewan, is a major force in the expansion of the village. Hudson Bay has managed to be included as one of the few Saskatchewan communities selected for participation in the Federal-Provincial Agricultural Service Centres Program, otherwise it would have experienced difficulty expanding its system.

The influence of the large amounts of automatic capital assistance received by N.W.T. municipalities is reflected in their low utility debt charge load. Therefore, even with operating costs that are higher than in the provinces, total expenditures are lower than for many of the

provincial municipalities. In this respect, the N.W.T. government's capital grants policy constitutes a rather less visible, but highly significant, assist to the N.W.T. municipalities in helping to offset higher northern operating costs.

The nature of the apparently generous capital assistance to N.W.T. municipalities can be most easily sensed in the context of water and sewer finances. However, similar effects apply to other capital assistance areas such as road construction, recreation facilities, schools, hospitals and in some cases, municipal buildings, firehalls, fire fighting equipment, ambulances etc. It is much more difficult to quantify the influence of such assistance on municipal expenditures.

Four or five-year summaries of the relative importance of sources of capital funds for several municipalities are presented in Table 6B-20. Although indicating the degree of capital expenditure activity these summaries are deficient in several important respects. The short study period is not adequate to present a true picture of the influence of capital grants. Major project activity can be missed or exaggerated. For instance, the D.R.E.E. investments distort the picture for The Pas, and the study period began just after the massive utility project capital assistance provided to Hay River and Yellowknife. Hudson Bay also benefited from the availability of an urban roads assistance scheme at that particular period.

Accounting procedures associated with the new town loan advances mechanism reduces the value of the capital summaries for the Alberta new towns. The large over-expenditures and under-expenditures could hide

higher levels of government grants (but interviews with municipal officials revealed that grants and debt forgiveness were in fact small or negligible during the study period). Outstanding per capita debenture debt for several municipalities is shown in Table 6B-21. Bearing in mind the rapid growth features of the N.W.T. municipalities (excepting Fort Smith) they appear to compare favourably with the levels found for provincial municipalities. This table also indicates better the level of debt which is borne by the Alberta new towns.

Although the quantitative evidence presented in the capital summaries is weak, qualitative evidence, and data in Table 6B-21, suggests that there is in the N.W.T., a relatively generous level of government capital assistance. This support, which is best seen in the area of water and sewer services, further compensates the N.W.T. municipalities for relatively low tax bases and higher northern costs.

TABLE 68-17
WATER AND SEWER SERVICES INVENTORY OF SYSTEM INFORMATION

	YELLOWKNIFE	DAY RIVER	FORT SMITH	INUVIK
Rate Structure	Metered \$2/first 1,000 gal.	No water—presently includes	Metered \$10/1,000 gallons	\$10 minimum or \$1/1,000 gallons
Monthly Charge	\$2/1,000 thereafter	sewage charge.	\$1.50/1,000 thereafter	Water delivery—780 gal./month
by Gallons	Flat rate—\$13/month (based on average of 5,000)	Flat rate—\$15/month	Sewage—\$5/month	Charge is 2.5c/gal. over quota
	Water delivery—same as metered. Charge includes sewage charge.	Water delivery—40 gal./day for \$5/month	Trailers flat rate \$15/month	
			Water delivery \$5/month	
Water Source	Yellowknife River	Lake	River	River
Water Treatment	heated, chlorinated, filtered	heated 2°F, chlorinated, fluoride added	heated to 36°F, chlorinated, fluoride added (silt problem—use 40% of treated water to flush system in the spring)	
Water System Capacity	Pumping & treatment facilities can handle 2-3 times the present consumption, but water lines, especially downtown need expansion	470,000 gallons/day (can do more for short time)	225,000 - 250,000 gallons/day	
Water Consumption in Gallons	Avg. piped—11,000,000 gal./month. Per capita - 52 gal./day. Water delivery	Avg. 340,000 gal./day. Per capita 106 gal./day. Peak 600,000 gal./day. High in winter—taps left on to prevent freezing.	Avg. 4,000 gal./month/household. Peak 230,000 gal./day. Per capita 80 average	
Water delivery		Water delivery 45 gal./week.	Water delivery 45 gal./week.	
Pop. Served	2,473 premises	3,100 - 3,300	2,500	75% on Utilidor
Pipe System	7,000			
Water Delivery	213 premises (est. 600-800 people)	1,000 delivered 4 times/week	65 premises—twice/week	25% delivered once/month
Sewage Treatment	lagoon	double-cell drop lagoon (barely adequate)	lagoon—good soil drainage (adequate treatment—needs expansion) CESS pits—30% of houses & trailers—cuts sewage flow to 50% of water.	
Manpower Requirements	23,000-24,000 manhours	5 men	3 men	
REMARKS	closed recirculating system; expensive due to pumping required	closed recirculating system; needs expansion to accommodate increased demand	non-recirculating; no freeze-up problems; no serious maintenance problems or expansion difficulties	Utilidor owned & operated by N.C.P.C.—data not available

NOTE: Water delivery in North subsidized by government; rates are generally most recent and revenues may not be comparable to those of earlier years in financial charts; rates apply only to residential units. Rates do not include frontage taxes.

TABLE 6B-17

WATER AND SEWER SERVICES - INVENTORY OF SYSTEM INFORMATION

	PINE POINT	FORT SIMPSON	HIGH LEVEL	FOX CREEK
Rate Structure Monthly Charge by Gallons	No Meters - Houses \$6.50/month Trailers & Apts. \$5.00/month Sewage: Houses \$3.25/month Other \$2.50/month	Flat Rate \$15/month (was in recent past \$17.50/month) Includes sewage	\$12/month/3,000 gallons - \$3.75/month/next 3,000 gallons Water delivery-sold to contract- or at 3/4c/gal., he resells at 2 1/2c/gal. Sewer charge: \$3.00/ month residential	\$4.00/month - water \$3.00/month - sewer
Water Source	Dry Wells	Mackenzie River mainly, also a inland spring.	Footner Creek	2 wet wells - 20,000 gal. each plus reservoir of .5 million gals.
Water Treatment	Reverse osmosis, filtration, chlorination, heated to at least 36°F	Chlorinated, fluoridated, filtered	Chlorinated, fluoridated, filtered - treated chemically to remove colour, odour & taste	Chlorinated, filtered, aerated, iron removed
Water System Capacity		108,000 gallons/day - restricted by treatment plant capacity	150,000 gallons/day	160,000 gallons/day
Water Consump- tion in Gallons	Avg. 124,800 gallons/day Per capita 104 gallons/day Peak 320,000 gallons/day	Avg. 100,000 gallons/day Per capita 100 gallons/day Peak 125,000 gallons/day	Avg. 82,300 gallons/day Per capita 51 gallons/day Peak 164,300 gallons/day	Avg. 120,000 gallons/day Per capita 40 gallons/day
Pop. Served Pipe System	1,200	1,100 - 1,400	No bleeding required 1,400	No bleeding required 1,500 - 1,600 people (whole town)
Water Delivery	None	30 deliveries twice/week	No water & sewer for industrial area for surrounding area water is delivered	No water delivery
Sewage Treatment	Lagoons, fairly adequate, but needs upgrading	No treatment Plans to build a lagoon	3 cell lagoon Flushed twice a year	2 Lagoons - 4 cells each aerated and chemically treated good capacity
Manpower Requirements	No assigned staff, use public works employees when needed	4 Full-time		
REMARKS	Re-circulating System 1,000,000 gallon reservoir Water was very bad until now, expensive treatment used	System inadequate for population filtering is a problem, re-circulating	Storage capacity 520,000 gallons Breakage problem not serious New reservoir just built	No breakage problem, new system - works well and needs no expansion

NOTE: Water delivery in North subsidized by government; rates are generally most recent and revenues may not be comparable to those of earlier years in financial charts, rates apply only to residential units. Rates do not include frontage taxes.

TABLE 68-17

WATER AND SEWER SERVICES - INVENTORY OF SYSTEM INFORMATION

	FORT McMURRAY	HUDSON BAY	LA RONGE
Rate Structure	Metered: \$7.20/3,000 gallons	\$5/month for 12,000 gals/3months	\$17.50 water & sewer
Monthly Charge	.12/100 gallons thereafter	\$1.10 for each 1,000 gallons	Delivery to Air Ronge 1c/gallon
by Gallons	Flat rate: trailers \$9.60/ month. Sewer: minimum of \$3.60/month-Metered 25% of water charge; Flat 50% of water charge	over 12,000. Sewer Charge \$4.00 Delivery Charge \$3.50 for pick-up	by contractor - bought from town at 1/4c/gallon
Water Source	Athabasca River	Fir River	Lac La Ronge
Water Treatment	Softened, chlorinated, fluoridated - remove odour, colour and taste-heated to 38°F, filtration	Chlorinated Alum	Chlorinated, fluoridated, sedimentation, heated to 34°F
Water System Capacity	1,000,000 gallons/day Undergoing expansion	260,000 gallons/day Capacity over-run but water quality is not too bad	86,000 gallons/day Needs expansion
Water Consumption in Gallons	Avg. 700,000 gallons/day Per capita 82 gallons/day Peak & low range 550,000 - 800,000 gallons/ day	Avg. 300,000 gallons/day Extensive bleeding required	At capacity 86,000 gallons/day Per capita 78 gallons/day No bleeding required
Pop. Served	8,000 - 8,500 self-serve	560 premises	105 residences
Pipe System	about 100 natives; avg. 40 gallons/day/person	2,000 people	1,100 people
Water Delivery	to construction camps 200,000 gallons/month	50 premises - weekly	none in town
Sewage Treatment	75% of water output is sewage; 3 Lagoons - capacity of 4.5 million gallons - good for 17,000 population	Lagoon (being upgraded)	2 Cell Lagoon not adequate
Manpower Requirements	7 men - water	Men used work in Public Works Department (3)	3 Men
REMARKS	water storage capacity of 580,000 gallons - needs expanding - not recirculating	Fair number of breaks, a lot of water wasted on flushing. 78,000,000 gallons/yr. treated 40,000,000 gallons/yr. sold Rest used to flush system	Re-circulating system - good system - no breaks - parts of it are old

NOTE: Water delivery in North subsidized by government; rates are generally most recent and revenues may not be comparable to those of earlier years in financial charts, rates apply only to residential units. Rates do not include frontage taxes

TABLE 6B-17
WATER AND SEWER SERVICES - INVENTORY OF SYSTEM INFORMATION

	THOMPSON	THE PAS	FURT NELSON
Rate Structure	No Charge	\$1.50/1,000 gal. for first 18,000	-\$6.50/month water
Monthly Charge		\$1.15/1,000 gal. over 18,000	-\$6.50/month sewer
by Gallons		(based on 3 month consumption)	(Not metered)
		Sewage \$7.50/3 months	
Water Source	Burnt Wood River	Saskatchewan River	River
Water Treatment	Owned & operated by INCO sedimentation, filtration, chlorination. No heating, water treated & provided free to town who distributes	Filtered, chemicals added, chlorinated, heated in winter to 37.5°F	Chlorinated, settling pond. No Sewage outlet upstream of water intake
Water System Capacity	10,080,000 gallons/day Peak	3,000,000 gallons/day	550,000 gallons - capacity artificially boosted by direct pumping
Water Consumption in Gallons	Avg. 2,000,000 gallons/day Per capita 115/gallons/day Peak 2,500,000 gallons/day	Avg. 500,000 gallons/day Per capita 70 gallons/day Peak 740,000 gallons/day requires winter bleeding	Avg. 345,000 gallons/day Per capita 128 gallons/day Peak 525,600 gallons/day High visitor usage requires bleeding.
Pop. Served	19,000	7,200	2,700
Pipe System			
Water Delivery	No water delivery	outside town 1,000 twice weekly - contracted	very small number on wells and delivery
Sewage Treatment	Two systems-owned by town 1. aerated lagoon-excellent 2. treatment plant - sedimentation, digestion, filtration, chlorination	Aerated lagoon, chlorinated Operating at 1/3 capacity	3 cell lagoon, chlorinated (very inadequate - too small capacity)
Manpower Requirements	4 men - sewer 3 men - water	3 men	Depends on amount of pumping 4-8
REMARKS	excellent system - no serious break problems	new parts are good, older pipes will need replacing-generally adequate	Numerous breaks each year-poorly designed system - lots not concentrated, inadequate pumping system, storage capacity almost nil

NOTE: Water delivery in North subsidized by government; rates are generally most recent and revenues may not be comparable to those of earlier years in financial charts, rates apply only to residential units. Rates do not include frontage taxes.

TABLE 60-17
WATER AND SEWER SERVICES - INVENTORY OF SYSTEM INFORMATION

	MACKENZIE	CAMROSE	WETASKIWIN
Rate Structure Monthly Charge by Gallons	\$4.00/month-water; \$3.80/month sewer; \$1.95/month garbage Some commercial buildings are metered.	Minimum \$2.75/month Roughly \$125/year/premise	45¢/1,000 cu.ft. \$125/yr/premise
Water Source	Lake pumped to storage tank. gravity fed.	Artificial recharge system Water from lake pumped into gravel beds, then drawn by wells	17 deep wells 55% Coal Lake 45%
Water Treatment	Flouride added filtered naturally by gravel. Clean source.	Chlorinated and micro- strained. No heating.	No heating, chlorinated Alum. settled, filtered
Water System Capacity	Designed for 6,000 pop. needs expansion	Capacity good. 1,000,000 gal./day roughly	Capacity good 700,000 gal/day
Water consumption in gallons	605,000 gal./day, per. cap. 110 gal./day. based on 5,500 pop. March 1974	Avg. winter 600,000 gal./day Avg. summer 800,000 gal./day Per. Cap. 60 gal./day. Peak 1,000,000 gal./day. Premise/day 197 gal.	Avg. winter 350,000 gal./day Avg. summer 425,000 gal./day Per. Cap. 60 - 65 gal./day Peak 700,000 gal./day. Premise/day 190 gal.
Population served Pipe system Water delivery	All 5,500 none	9,000 premises 2,651 20 delivers-once/week \$1.00/1,000 gal	6,600 20 homes have own well
Sewage Treatment	Lagoon-open air needs expansion and up- grading	6 cell system, treated capacity 1.5 million gal./day	lagoon
Manpower Requirements	2 full time new system - very little maintenance	Supplied by Calgary Power	Good system Supplied by Calgary Power

NOTE: Water delivery in North subsidized by government; rates are generally most recent and revenues may not be comparable to those of earlier years in financial charge, rates apply only to residential units. Rates do not include frontage taxes.

TABLE - 6B-18

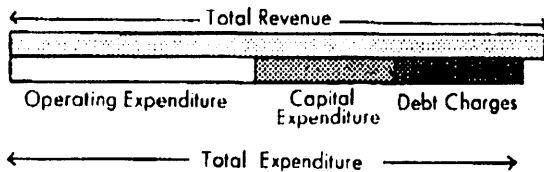
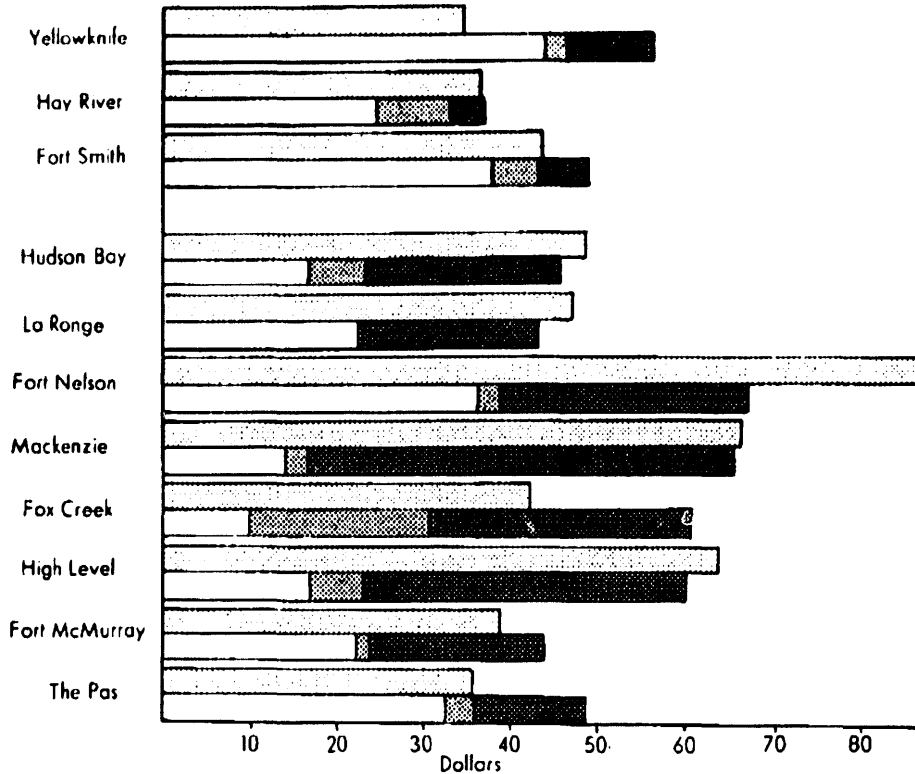
WATER AND SEWER SYSTEMS EXPENDITURES AND REVENUES, 1972, IN DOLLARS PER CAPITA

1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972
1972 population	7,400	3,500	2,500	1,700	2,028	1,100	2,500	3,300	1,514	1,621	7,000	19,001	7,000	8,908	8,310
1. Water Revenue	34.82		37.38		36.60	39.59	43.24	31.99	35.13	50.87	27.73				
2. Sewer Revenue			6.24	12.58	11.67	8.22	43.20	14.02	17.22	17.07	11.34			2.05	1.76
1+2 Water and Sewer Revenue	34.72	36.30	43.64	12.58	48.27	47.81	86.43	46.01	42.35	63.54	39.07		36.01		
3. Water Expenditure	47.09		35.57				51.90	35.65	41.90	49.32	33.81	2.84			
4. Sewer Expenditure	8.84		13.14 ³				14.80	29.72	19.05	11.00	10.29	7.40		9.60	9.88
3+4 Water and Sewer Expenditure	55.93	36.77	48.71	76.89	45.74	43.14	66.70	65.36	60.95	60.40	44.10	10.24	48.75		
5. Water Debt Charges	8.11		.68				16.96	24.38	12.32	28.05	12.48				
6. Sewer Debt Charges	1.40		4.82				11.31	24.38	17.91	8.89	7.24	0.95		4.45	5.38
5+6 Water and Sewer Debt Charges	9.51 ¹	3.75 ²	5.50		22.10	20.61	27.97	48.76	30.23	36.94	19.72	0.95	12.19		
7. Water Capital Expenditures	2.72		5.34				2.17	2.17	20.75	6.37	1.49				
8. Sewer Capital Expenditures															
7+8 Water and Sewer Capital Expenditures	2.71	8.18	5.34		6.59		2.17	2.37	20.75	6.37	1.49		3.71		
4-6+8 Sewer Expenditures less debt charges & Capital expenditures	7.44		8.32				3.48	5.33	1.14	2.19	3.06	6.45		4.12	4.50
3+4-5-6-7+8 Water and Sewer Expenditures less Debt Charges and Capital Expenditures	43.70	24.84	37.87	64.32	17.05	22.53	38.56	14.23	10.15	17.09	22.89	9.29	32.85		
3+4-5-6-7+8 Water and Sewer Expenditures less Debt Charges and Capital Expenditures														sewer only	sewer only
3+4-5-6-7+8 Water and Sewer Expenditures minus total water and sewer Revenue	21.11	0.49	5.07	64.32	(-2.53)	(-6.87)	(-19.73)	(-0.64)	18.60	(-3.31)	5.06	10.24	12.64	8.52	8.12

1. These charges were extracted from total debt charges by adding the payments on each "water & sewer" debenture.
2. Debt charges related to development funds are not included - they are to be paid by land sales, not by utility revenues. (Also see explanation presented in Appendix A)
3. Estimated from total "sanitation and waste removal" expenditures.
4. For sewage hauling only; other sewer charges for sewer are combined with water revenue.

SOURCE: Financial Statements, 1974.

Figure 6B-7
**WATER AND SEWER PER CAPITA
 FINANCIAL DATA, 1972 ***



* See relevant text and tables for detailed interpretation

TABLE 4.10
SUMMARY OF SOURCE OF CAPITAL FUNDS ANALYSIS

	Y*Knife, 1956-72	Hay River, 1969-72	Ft. Smith, 1958-72	Inuvik, 1968-73	Ft. McMurray, 1963-72	High Level, 1968-72	Fox Creek, 1968-72	Hudson Bay, 1968-72	La Ronge, 1969-72	Nackenzie, 1970-73	Thompson, 1968-72	The Pas, 1968-72	The Pas DREE program, 1970-72
Total Actual New Funds (total funds minus unexpended from previous years, overexpended and works in progress)	\$ 7,603,350	1,591,809	1,032,670	913,739	5,718,285	3,105,082	1,740,391	671,391	391,523	4,629,644	5,547,902	2,060,851	5,578,095
Dependures (See Loan Loans, also)	\$ 2,908,605	570,890	266,020	80,366	3,677,419	1,821,390	576,556	75,500	103,608	1,264,602	133,000	548,934	317,856
	% 38.3	35.9	25.8	8.8	64.3	58.7	33.1	11.2	26.5	27.3	2.4	26.6	6.1
Short-Term Borrowing	\$ 34,000	-	-	-	619,877	-	-	61,998	4,945	1,329,576	977,795	821,350	434,507
	% .4	-	-	-	10.8	-	-	9.2	1.3	28.7	17.6	40.0	7.8
From Revenue	\$ 319,914	526,421	374,976	565,549	374,608	295,860	408,382	187,075	31,058	388,384	1,533,812	250,330	-
	% 4.2	33.1	36.3	62.2	6.5	9.5	23.5	27.8	7.9	8.4	27.6	12.1	-
Territorial/Provincial Grants	\$ 2,395,355	226,727	235,447	289,444	-	143,048	109,745	194,521	181,093	-	-	-	with total DREE Grants
	% 30.3	14.2	22.9	27.7	5.1	4.6	6.3	29.9	46.3	-	-	-	-
Federal Grants	\$ 1,046,301	-	-	-	99,631	-	33,931	2,700	18,616	991,852	43,000	-	3,884,094
	% 13.8	-	-	-	1.7	-	1.9	.5	4.8	21.4	.8	-	69.6
Other Sources	\$ 990,130	267,771	155,227	11,472	662,256	842,784	611,777	150,110	52,153	655,230	2,856,295	438,237	921,638
	% 13.0	16.8	15.0	1.3	11.6	27.2	35.2	22.3	13.3	14.2	51.5	21.3	16.6
SUMMARY:													
Percent source Government Grants	44.1	14.2	22.9	27.7	6.8	4.6	8.2	29.4	51.1	21.4	.8	-	69.6
Percent source all others	55.9	85.8	77.1	72.3	93.2	95.4	91.8	70.6	48.9	78.6	99.2	100	30.4

SOURCE: Analysis of financial statements.

TABLE 6B-21

OUTSTANDING PER CAPITA DEBENTURE DEBT, PRINCIPAL ONLY, AT DECEMBER 1972

	Water System Debt	Sanitary Sewer Debt	Total Water & Sewer Sewer Debt	Special Funds Debt	Other Capital Projects Debt	Total Debt Per Capita	Total Debt Dollars
YELLOWKNIFE			114	100	182	396	2,927,595
HAY RIVER			38	59	85	182	637,820
FORT SMITH	5	36	41	-	69	110	275,165
INUUVIK			-	-	22	22	78,480
FORT NELSON	191	80	271	-	-	271	678,050
MACKENZIE	272	273	545	-	-	545	1,799,092
HIGH LEVEL	430			-	276	706	1,144,340*
FOX CREEK	221			-	461	682	1,031,565*
FORT McMURRAY	140			-	435	575	4,368,056
CAMROSE			88	19	153	260	2,339,763
WETASKIWIN	-	37	37	25	225	287	1,871,071
HUDSON BAY			177	-	21	198	400,823
LA RONGE			159	-	4	163	180,204
CHURCHILL			3	-	-	3	4,211
THOMPSON	-	7	7	-	-	7	125,865
THE PAS			51	-	66	117	821,227

Source: Analysis of Municipal Financial Statements.

- A breakdown of water and sanitary sewer debt was not possible in some of the communities.
- For High Level, Fox Creek and Fort McMurray the sanitary sewer debt is included under "Other Capital Projects Debt".
- * For High Level \$837,130 (or \$516 per capita) represents New Town Advances. For Fox Creek \$987,324 (or \$652 per capita) represents New Town Advances.
- Most of the debt listed as "Special Funds" Debt is for land development and includes some debt for water and sewer systems.
- Pine Point and Fort Simpson had no outstanding debenture debt at December 31, 1972.
- Population used is the 1972 population as on the Population Chart.

PART IV - CHAPTER 7

SUMMARY AND CONCLUSIONS

A. INTRODUCTION

Purpose: The purpose of the study is to serve as a policy development tool. This is achieved by providing comparative information on the financial structure of municipalities in the Northwest Territories and the Western Provinces.

Objectives: The objectives of the study are to compare the nature and level of the financial assistance provided by the territorial and provincial governments to their municipalities; to identify the administrative and financial responsibilities of the municipalities in the various jurisdictions; and to evaluate the influence of special costs or difficulties or variations in service levels associated with the provision of municipal services.

Scope: The scope of the study is restricted mainly to detailed comparisons of the six tax-based municipalities in the N.W.T. (as at January 1, 1974) and comparable, or otherwise relevant, selected municipalities in the provinces. The scale of analysis is inter-municipal, emphasizing deviations from provincial or territorial average patterns. No attempt is made to probe very deeply into important aspects at the micro- (individual or intra-municipal) scale or the macro- (provincial/federal) scale although recommendations are made for future research at these scales. (See Chapter 8).

Method: Selection of the provincial municipalities involved a systematic consideration of relevant criteria. The comparisons were based

mainly on per capita revenue and expenditure calculations. Literature and field research methods were employed to assemble background data, and in particular to make a service level inventory. Much effort was expended on standardizing the municipal financial statements. Standardization of the financial data for the N.W.T. municipalities proved to be particularly troublesome and time-consuming owing to the absence of a standard reporting procedure. Future reviews of municipal finance policy in the N.W.T. could be expedited with much greater ease and rapidity if such a standard procedure was introduced immediately and rigorously enforced. The compilations of the financial statements of the municipalities studied are collected together as Volume II of this report.

Approach: Initially the precise financial responsibilities of the municipalities were determined. The importance of direct and indirect (hidden)* financial assistance from senior governments was identified. Possible cost differentials and the importance of various cost mixes (for example, labour, supplies, power, utilities etc.) on the delivery of municipal services was considered. These aspects were then considered in conjunction with indices of levels of service in order to evaluate variations in the per capita cost of providing municipal services, and the effectiveness of financial assistance.

Perspectives: It was deemed desirable to introduce some important perspectives prior to, and to aid in the interpretation of, the back-

*'Hidden' financial assistance is used to indicate situations where municipalities in one jurisdiction are partially or wholly absolved from financial responsibilities in a service area which in another jurisdiction draws greater municipal financial and administrative input.

ground information and results section of the study report.

- a) **General Perspective on the Study:** The Government of the N.W.T. requested this study to determine how the nature and level of assistance provided to the N.W.T. municipalities compared with the assistance provided to provincial municipalities. The study is, in effect, one response by the Government of the N.W.T. to a questioning of government policy stated in a joint brief of the city councils of Yellowknife and Whitehorse in May 1973. In the brief, much is made of the problems arising from the rapid growth which has been a feature of the N.W.T. in recent years. These problems have affected most of the N.W.T. municipalities and Yellowknife in particular. Information presented in this report suggests that the government's request for the study was timely, and this is especially the case with regard to Yellowknife's situation.
- b) **National Municipal Scene:** When the municipalities are viewed from the general national scale they are not cast in a very healthy financial light compared to the provincial and federal governments. This general municipal fiscal imbalance issue is larger and more basic than the inter-jurisdictional variations emphasized in this study.
- c) **Comparability:** There are considerable differences between the municipalities in the N.W.T. and those in the provinces.

The N.W.T. municipalities and those selected to represent the provinces, despite having similar populations and other broadly similar features, are effectively at two very different levels in their respective settlement hierarchies.

- d) **Miscellaneous Intangibles:** Certain other less tangible features of the N.W.T. municipalities underline the 'another world' character of the N.W.T. generally. Some of these are the influxes of wealthy southern urbanites with high service level aspirations, and, at the other extreme, relatively poor natives migrating from the surrounding regions. The high degree of transiency and general rootlessness of the municipal populations distorts the decision-making structure of municipal governments in the N.W.T. from that encountered in the south.
- e) **Historical:** Municipal development in the N.W.T. has been relatively recent by comparison with the provinces and dates essentially from the early fifties. The territorial municipalities have suffered the political cost of a continuing federal dominance over their affairs, but in the process they have gained absolution of large portions of financial responsibility for certain people services and have also benefitted from a relatively generous senior government capital assistance policy. There is still some potential to exploit further the unique relationship of the territorial municipalities, with the territorial government and the

federal government.

B. AGGREGATE ANALYSIS

The analysis of municipal financial data at the provincial and territorial level of aggregation indicated, in broad scene-setting fashion, the major trends and patterns of the topic under study. In all jurisdictions, between 1966 and 1971, the importance of taxation in the total revenue picture declined substantially. This was matched by increased transfers (grants) from the senior governments. The analysis pointed up the critical issue of the composition of conditional transfers. Most such transfers in the N.W.T. are allocated to traditional house-keeping municipal services only. Provincial municipalities receive the bulk of their operating conditional transfers for services to people such as health, welfare and education, rather than services to property. The per capita level of unconditional transfers to municipalities was the highest in the N.W.T. (in 1971). Total real transfers also exhibited a similar pattern. Grants-in-lieu of taxes revenue was of much greater importance in the N.W.T., compensating in large part for low taxation revenue. Sales of service was also significantly higher than levels present for the provinces.

The main expenditure pattern brought out in the aggregate analysis was that while education was the dominant category in the provinces, in the N.W.T. the greatest expenditures were made on public works, sanitation and waterworks and recreation services. General government expenditures by N.W.T. municipalities were also much higher than in the provinces. The debt charge load in northern municipalities was seen to be much less than in the provinces, reflecting relatively generous

capital assistance policies. Variations in the weight of financial responsibilities borne by municipalities in the N.W.T. and the province were most apparent in the areas of police, law enforcement and corrections, health and welfare, and particularly education. In all these cases the weight borne by N.W.T. municipalities was less. Variations due to the influence of greater northern costs and difficulties could not be ignored in per capita expenditures for street lighting, public works and sanitation and waterworks.

C. GENERAL ASPECTS OF MUNICIPAL FINANCE

Municipal Organization: The tax-based municipalities in the N.W.T. have basically the same power and procedures as do similarly classified municipalities elsewhere in Canada. The N.W.T. is, however, the least developed in terms of municipally organized population. Only about one-half of the N.W.T. population resides within the main municipalities, but this population rises to about two-thirds when hamlets (quasi-municipalities) are included.

B.C. has just over 80 per cent of its population municipally organized. This is the lowest proportion of the four Western Provinces. Regional districts in B.C. cater to the needs of the majority of the remaining population. In the other provinces virtually all the population is municipally organized (into urban, rural or other forms of municipality).

Some of the various special forms of municipal organization present in the provinces which could be usefully adapted for application in the N.W.T. in the future are the municipal districts in B.C. and the local

government districts in Manitoba. These forms could be developed in part to help formalize the emerging regional councils in the N.W.T. into effective stronger municipal units. Guidance in this task may also be forthcoming from the experience being gained in Northern Saskatchewan with the Northern Municipal Council.

Another application of district or regional municipal units could arise in the near future if and when gas production and processing installations become numerous in the Mackenzie Delta. Tax transfer devices, such as those used between the improvement districts and urban municipalities in Alberta, constitute an alternative, though somewhat less desirable, approach to district or regional municipal status. Further research of these municipal forms and devices, in an N.W.T. context, could prove timely.

Local Taxation and Non-taxation Revenue (Excluding Transfers): The lack in the N.W.T. of private and industrial property with a substantial assessment base markedly limits the taxable real property base. This feature places a greater onus on the territorial government to improve the revenue base through transfers or the assumption of all or part of the responsibilities normally carried out by municipalities. Rapid growth of the territorial municipalities brings problems of how to tax the main agents of change to compensate for the extra financial stresses contracted by the municipalities during boom conditions.

Widely varying practices in the valuation of property between (and within) the major jurisdictions precluded direct inter-jurisdictional comparison of taxable assessments or mill rates. Tax effort and tax burden have therefore proved intractable in other than rather broad

qualitative terms at the present scale of analysis, but these aspects should receive a high degree of priority in future research plans.

Little variation exists in other non-taxation revenue sources between the major jurisdictions except for one important, if possibly ephemeral, exception. Land development sales have been very significant for certain N.W.T. municipalities, often wildly distorting their "other revenue from own sources" category.

Grants-in-lieu of Taxes: These unconditional transfers are paid by senior governments and their agencies, or by large industries in some cases, and are in effect tax revenues. Crown property is relatively abundant in the N.W.T. and government grants-in-lieu are an important revenue source to all N.W.T. municipalities, but of negligible importance in virtually all of the provincial municipalities. The size of this revenue source in the N.W.T. accentuates the scope for niggling criticism by the municipalities. Generally, however, 'loss' of revenue due to this influence is not significant, especially if municipalities avoid special area or frontage tax levies and pursue a strategy of local improvement charges on projects with a life-time of over ten years. The major exception to the above statement lies in the realm of business occupancy taxes. Governments, or their agencies, generally do not pay grants-in-lieu for such taxes, and in the N.W.T., where numerous government offices replace what in the south would be mainly private office space, there is a much more tangible loss of revenue on this count. This problem should be circumvented in the near future if the split mill rate proposal to amend the Municipal Ordinance is approved by Territorial Council.

Because of the importance of grants-in-lieu of taxes revenue, there may be some advantage accruing to the N.W.T. municipalities through the relative lack of resistance of governments to increasing property tax rates. For the same amount of tax load, the territorial and federal governments have a much greater capacity to absorb any increases by comparison with a large number of small private property tax-payers. In addition, the N.W.T. municipalities tend to receive, at least as good as, and usually better treatment, in terms of grants-in-lieu payments, by comparison with that accorded to their provincial counterparts.

Industrial grants-in-lieu payments to municipalities in the N.W.T. have only been important at Pine Point. These payments were not formal grants-in-lieu since the mine was not officially taxable for a time. The mine is now within the municipal boundaries and is in the usual relationship to the municipal government.

Capital Assistance and Borrowing: Specialized regulatory and financing boards are absent from the N.W.T. municipal scene. There has been a proliferation of ad hoc policy decisions in the area of capital assistance. This 'policy' has had its merit in view of the great variability of circumstances faced by the N.W.T. municipalities. As well as its flexible feature, government capital assistance in the N.W.T. appears to have been relatively generous in comparison with provincial practice. (It is generally agreed for instance, that there is no need for the Alberta 'new town' type of legislation in the Territories.) Where outright capital grants meet only part of total project costs, the N.W.T. government organizes borrowing for the municipalities at prime

interest rates. In total, capital assistance appears to be a less visible but highly significant source of financial assistance to N.W.T. municipalities. The generous capital assistance aspect is in line with the federal government's policy to develop the North. The N.W.T. can be viewed in some respects as one large D.R.E.E. special area.

Little variation in the amount of control vested in governments over municipal borrowing occurs between the jurisdictions. In the provinces government control takes the form of dispensing agencies such as municipal finance authorities or local authorities boards.

Home-ownership Grants and Tax Credit Systems: All four provincial jurisdictions have some form of home-ownership assistance and/or tax credit scheme designed to reduce the property tax burden of homeowners and/or renters. No such scheme exists in the N.W.T. The home-owner grant does not conform to the general criteria with respect to what constitutes an intergovernmental transfer. It is paid to individuals rather than to municipalities but it can be viewed as opening up some convenient property tax room for municipalities. (This can be at the expense of other tax burdens such as sales tax, increased income tax, or health premiums etc.) In the process, however, it can generate inequities whenever different categories of property tax-payers are treated differently. It may accentuate any problems relating to lack of uniformity in assessment, and, depending on the exact nature of the system, it may not contribute significantly to reducing the regressiveness of the property tax. It may also be expensive to administer.

Tax credit systems make explicit use of income and generally achieve a greater degree of success in making property taxation less

regressive. Except for arrangements where such reduction in regressivity is achieved, it is difficult to find any merits in either system compared to alternative uses of the funds benefiting municipalities more directly. Some of these alternatives could be the assumption of greater financial and/or administrative responsibilities by the provinces in certain service areas, or the making of higher conditional or unconditional transfers. Such developments have in fact taken place in the provinces (e.g. Alberta) or have been requested by provincial municipal associations (e.g. requests in B.C. and Saskatchewan to replace future emphasis on home-owner grants with unconditional grants).

The impetus for home-owner grants in the provinces arose mainly out of the need to provide relief from the burgeoning education tax burden. The grants have also been used as a favour-gaining political tool by putting money into people's pockets in a very visible manner. Both of these arguments could apply to Yellowknife in the N.W.T. The grants could virtually silence the small but influential pocket of resistance to further municipal tax increases. It would be a cheap scheme, since relatively few home-owners would be involved, at least initially. Serious problems would arise, however, with discrimination against renters in unsubsidized accommodation. This problem would also occur by following the alternative route currently being proposed for the Territories, namely utilities subsidies. Perhaps the best alternative, as seems to be the preferred direction in the provinces, is larger unconditional grants to municipalities. Clearly, numerous options are open and careful research at the macro- and micro-scales, in addition to a municipal focus, is required before the most suitable approach can

be identified.

D. THE INTER-RELATIONSHIPS OF MUNICIPAL AND SENIOR GOVERNMENTS IN THE
PROVISION AND FINANCING OF MUNICIPAL SERVICES

Municipalities in the N.W.T. have generally been restricted in their activities to traditional housekeeping functions consisting mainly of services to property. By virtue in part of their late municipal development and the influence of the federal government, the N.W.T. municipalities escaped the experience in the provinces where municipalities contracted additional financial or administrative responsibilities in service areas which are now primarily under the control of the senior government(s). These service areas have been health and hospitals, social welfare, justice, policing and education. Although the trend in the provinces is now to rid or relieve the municipalities of most, and in some cases all, of the financial responsibilities associated with these functions, the N.W.T. municipalities still, in comparison with the provinces, can be deemed to be receiving significant indirect or 'hidden' financial assistance in these areas. This occurs because the senior government(s) deliver most of these services in the N.W.T., leaving the municipalities with little or no financial and/or administrative responsibilities. The large strides being made in the provinces are effectively eroding much of the relatively advantageous position of the N.W.T. municipalities in this regard. For certain service areas and municipalities (most frequently Yellowknife) the relative advantages have been eliminated or have been replaced by disadvantageous positions.

Health and Hospitals: In the N.W.T., the public health agreement between municipalities and the government involves financial responsibilities which, although very small in amount, exceed the level of responsibility experienced by the municipalities in certain of the provinces. In view of this development and the tediousness of administering the N.W.T. agreements, it may be timely to remove this small but irritating imposition on the municipalities.

Welfare: The N.W.T. municipalities have no financial or administrative responsibilities in the area of social welfare. This is rapidly becoming the pattern in the provinces, and the amounts involved are falling to very small proportions. The major exception is the continuing heavy burden being experienced by the high status municipalities in B.C. In such a comparison, the N.W.T. municipalities may be deemed to be receiving significant hidden financial assistance. In comparison with the other provinces, the N.W.T. municipalities are still in a relatively advantageous position but the advantage is small and decreasing.

Policing and the Administration of Justice: These areas, and particularly policing, are the services in which all the N.W.T. municipalities receive the clearest substantial effective hidden financial assistance. Municipalities in the N.W.T. do not make any contribution towards the administrative, capital or operating costs of the court system in the N.W.T. Similarly, they make no contribution towards the cost of police services rendered by the R.C.M.P. In the provinces, all the larger municipalities and all the smaller municipalities (except in B.C.) face policing costs, and in some cases court system costs.

Education: In the N.W.T., the government finances all education expenditures except for a percentage of those costs incurred by school districts. This policy effectively places Yellowknife in a deficit position with respect to the provinces and the other N.W.T. municipalities. The property tax burden carried by Yellowknife in financing education has been, by comparison with the experience of provincial municipalities, relatively high in the past owing to a lower proportion of costs being covered by government grants to the school districts. This relative deficit position has been exacerbated by the absence of the effect rendered by the home-owners grant systems in the provinces. The other N.W.T. municipalities technically finance a portion of education costs in their community through a much lower fixed levy. The yield of this levy meets a negligible portion of the education costs incurred in these communities.

At the present time, all four provincial jurisdictions are making energetic moves to reduce further the burden of education costs from property tax sources. These developments are rapidly diminishing the case for arguing against hidden financial assistance. From a policy perspective, the provincial developments in this and other people service areas should be kept under careful review. Priority should be given, however, to removing the substantial inter-municipal discrepancies in the N.W.T. with respect to education financing.

Before leaving the area of services to people, it may be useful to indicate the desirability of leaving a small, if only token amount, of financial responsibility for these services with the municipalities. This is on account of the large gains to be realized by having not only

relatively cheap administration of very large sums of senior government monies, but also by having this administration performed by bodies which can be more sensitive to the local needs that preferably should dictate how the monies are spent. This approach could be developed to a greater extent in the N.W.T., particularly in the area of welfare. This would result in the need for large conditional transfers to the municipalities since they would have the responsibility for spending the money, rather than the territorial government. One potential problem in the N.W.T. could be the high degree of transiency and the small municipal populations mitigating against the existence of a sufficiently large and sufficiently skilled cadre of relatively permanent municipal officials.

To offset deficient municipal revenue, direct financial assistance is given for the more traditional housekeeping functions in all jurisdictions. This assistance is in the form of unconditional or conditional transfers. In both cases, the level of assistance in the N.W.T. is superior to the levels in the provinces. As in the realm of capital assistance, this outcome is to be expected in part because of the federal government's declared policy to develop the North.

Unconditional Transfers: All jurisdictions now provide unconditional transfers, although Saskatchewan has only done so since 1974. In each case, the base for the transfers is a flat per capita rate to all municipalities. The N.W.T. government pays by far the highest rate, although B.C. is gaining (1974, N.W.T. \$40; B.C. \$34). However, B.C. places an emphasis on unconditional transfers to the detriment of net benefit conditional transfers. In Alberta, unconditional transfers

have received a large boost as part of the Alberta Property Tax Reduction Plan. Previous to 1971, the amount allocated to unconditional transfers in this province was a proportion of the oil and gas royalties. Manitoba has recently instituted a system whereby the per capita rate of these grants will be tied in to the growth rate of personal incomes in the province. Saskatchewan has preferred, until recently, to go the sole route of conditional transfers, and also to stress relatively generous capital assistance, by provincial standards.

There seems to be a growing appreciation of the need to recognize the inequities of a flat rate of per capita unconditional grant. A progressive approach would be to include in the system recognition of variations in the composition and strength of the municipal tax base, and forces such as population growth and location features associated with the individual municipality. For the immediate present in the N.W.T., it would seem wise to retain the present simply administered per capita base in place of a change to a fixed percentage of operating expenditures or tax levies. Changes in the latter direction would require much deliberation and political haggling. Research to evaluate various alternatives of sophisticating the overall assistance procedures, and to develop more sensitive measures of municipal financial need, should be given high priority in the N.W.T.

Transportation: In common with the situation in the provinces, municipalities in the N.W.T. are responsible for the construction and maintenance of municipal roads, sidewalks etc. In the N.W.T. there is a comprehensive government assistance policy in this service area, and no distinction is made between arterial/secondary roads and local roads.

In the provinces assistance is restricted mainly to the former category, with varying degrees of assistance being present. This service is also an important capital assistance area and is particularly so in the N.W.T. Only Saskatchewan, of the four Western Provinces, appears to approach the N.W.T. in this respect. Overall, the N.W.T. municipalities seem to receive relatively favourable financial assistance in this area by comparison with urban municipalities in the provinces. Policy revision could be contemplated, however, to recognize significant cost and need differentials between the various municipalities.

Recreation: Municipalities in the N.W.T. clearly benefit from a high level of government operating and capital assistance in the area of recreation by comparison with the provinces. The main need in terms of policy revision is to develop more sensitive incentive aspects to reward special municipal effort in the field of recreation.

Water and Sewer Services: Although the N.W.T. is unique in providing a measure of operating assistance in this service area, it is in the degree of capital assistance to municipalities that quite striking differences with provincial practices are found. The relative generosity exhibited by the N.W.T. government is a natural response to the much more difficult challenge a municipality faces in the N.W.T. of operating a self-liquidating sewer and water utility. Net costs to a municipality in the N.W.T. still tend to be higher than those experienced in larger, southern provincial municipalities and further subsidization, possibly through the new Public Utilities Board, merits consideration as a potentially useful means of offsetting future municipal revenue deficiencies. There is also marked inter-municipal

variability in the costs of this service which should receive attention with a view to equalization of the burden.

E. DETAILED INTER-MUNICIPAL AND INTER-PROVINCIAL COMPARISONS

The N.W.T. and its tax-based municipalities receive central attention in the detailed comparisons. Only highlights of these comparisons are included here. Much important detail is omitted in favour of summary generalizations.

N.W.T.: One of the most distinctive features of the N.W.T. municipal scene is the extreme variation in the effective education expenditure burden. Yellowknife suffers a very great burden because of the presence of school districts, whilst the other municipalities pay out much smaller sums, in the form of a government levy. This procedure constitutes a significant imposition on Yellowknife, although it is questionable if the quality of education provided varies greatly between the municipalities.

Land development activity at Yellowknife, Hay River and Inuvik has been a consistent, distorting feature in comparisons with the provinces. Due to the probably ephemeral nature of this activity, reservations should be entered as to its continued important influence on these municipalities' finances. Depending on the accounting procedure, land development activity can also show up in capital expenditures or debt charges.

Health and social welfare expenditures are nil or negligible for all the N.W.T. municipalities. Except for Yellowknife, protective service expenditures relate mainly to fire protection costs. In

Yellowknife bylaw enforcement costs are important, but in no municipality are police contract costs present.

Apart from education levies and expenditures, and land sales and costs, great variability between the N.W.T. municipalities occurs in other areas. Environmental health expenditures appear to be a particular burden to Yellowknife and Fort Smith, while Hay River, and Inuvik recently, have a much higher level of recreation expenditures. Pine Point displays extremely large anomalies in both these service areas which are difficult to account for in detail. Particularly rapid growth, and ensuing capital project development, has meant a relatively high debt charge load for Yellowknife in comparison to the other N.W.T. centres. Inuvik with a roughly similar recent history of development has escaped such a burden.

In spite of, or because of, its special expenditure demands, Yellowknife has the healthiest tax base of the N.W.T. municipalities (excluding Pine Point). Hay River, Fort Smith, Inuvik and Fort Simpson follow in order of healthiness. Grants-in-lieu revenues are important in all municipalities but are particularly so in Inuvik and least so in Hay River. Transfers are also important in all municipalities. Unconditional transfers have dominated over conditional transfers in all centres except Fort Smith. The taxable assessment base used for the unconditional grant prior to 1973 mitigated against Inuvik and Fort Smith. The rate of growth of senior government transfers has been impressive in all the major municipalities, except for Inuvik.

In Yellowknife transfers per capita appear to have more than kept pace with per capita expenditure growth while taxation revenue per

capita has lagged. The difference has been made up through increases in sales of services revenue and in land sales. At the slow growth municipality of Fort Smith, transfers particularly, and, to a lesser extent, taxation, more than kept pace with expenditure growth (all in per capita terms). At Hay River, by contrast, where growth has been relatively paced and from quite a strong initial base, expenditures per capita appear to have just kept in line with the needs of the growing population. There is less likelihood here than at Fort Smith that large gains in the quality and level of municipal servicing were achieved. In Inuvik, taxation revenue per capita more than kept pace with expenditure growth, whereas growth in transfers lagged well behind. The rapid per capita expenditure growth present for Inuvik is probably as much, if not more, a reflection of a very low initial base, than marked advances in the level and quality of municipal services provided.

Fort Simpson has only just emerged from hamlet status and its municipal finance structure reflects its continued strong dependence on government assistance for revenue and the dominance of basic services in its expenditure pattern. Pine Point, with a similar population to Fort Simpson, and also recently incorporated as a village (town status from April 1974), displays widely contrasting municipal finance features by virtue of its prosperous role as townsite to the Cominco mine development.

Great variability in municipal finance structure is the most striking feature present for the six N.W.T. municipalities. This is a demanding environment for the development of policy which is flexible enough to cope with the variability. Policies involving uniform

treatment of all municipalities automatically favour certain municipalities to the detriment of others. It could be argued, for instance, that Fort Smith has benefited in terms of rates of transfers which have been pushed up by the needs of the higher growth municipalities, yet Inuvik has suffered by having above average growth problems. Inuvik also suffers from a standard percentage of road maintenance assistance since its unit costs for the same level of service are so much higher than the Great Slave Lake centres. Sophistication of assistance schemes is therefore required to more sensitively recognize inter-municipal variability and to avoid resorting to the other extreme of ad hoc decision-making.

F. WESTERN PROVINCES

Inter-municipal variability in municipal finance is also found in the provinces, compounding the problems of realizing a meaningful summary presentation. Inter-provincial variations appeared to be less marked than provincial/territorial variations however, and it is the latter which are stressed here.

Normally Yellowknife was found to be the only N.W.T. municipality to compare favourably with the provincial selections in terms of taxation revenue per capita. The other N.W.T. municipalities were raised in position by the inclusion of government grants-in-lieu (generally of minimal importance in the provinces) as taxation but the shortfall with the provincial municipalities remained significant. However, the discrepancies tended to diminish and in some cases to disappear when non-tax revenue was considered. Senior government transfers were found

to be a particularly important factor in bringing the N.W.T. municipalities closer to a par position with the provincial selections, as far as revenues were concerned. This pattern, in addition to the impressive rate of growth of transfers in the N.W.T., indicates that, generally, the present level of direct assistance is adequate, by comparison with the provinces, in helping to compensate for low tax bases in the N.W.T.

Regarding expenditures the smaller N.W.T. centres generally compared favourably with the southern selections but an exception had to be frequently made for Yellowknife. The favourable position of the smaller centres appeared to arise out of a net balance, in their favour, between the absence of certain financial responsibilities, present for the provincial selections, and the presence, in the N.W.T., of apparent additional costs in providing some municipal services. The question of additional costs experienced by the N.W.T. municipalities seemed to be an open one. The relatively high per capita expenditures for certain services in the N.W.T. (general government, recreation, transportation services, environmental health), consistently occurred in those service areas where government unconditional and conditional operating or capital grant support is an important factor. (The unconditional grant is channelled initially into administration.) The high expenditure levels could therefore be a function of the generous level of grants as much as of additional costs. The important advantage areas for the smaller N.W.T. municipalities tended to lie in the spheres of education and protective services, both hidden grant areas, and debt charges, where the favourable influence of the government capital assistance policy is felt.

Whereas the smaller N.W.T. municipalities emerge in a relatively favourable position compared with the southern selections, Yellowknife occupies only a comparable, or similar position. This is brought about primarily through relatively large burdens overall in the areas of education, protective services, debt charges and environmental health. Yellowknife's relatively comparable position with its approximate equals in the south should not be taken as a prescription for complacency in the face of municipal requests for additional assistance. Special peculiarities abound on the Yellowknife municipal scene. For instance, there is the uniquely large (in the N.W.T. context) education finance burden. Rapid population growth has entailed not only large rate increases but also large absolute increases. Land development revenues have cushioned Yellowknife from harsher times to some extent in recent years, but this effect cannot be expected to persist. Arsenic water pollution scares brought heavy capital assistance from senior governments to Yellowknife without regard to the concomitantly heavy ensuring operating expenditures.

Regarding the smaller N.W.T. municipalities, although it appeared that in general they were in a favourable position in relation to the provincial municipalities, it must be recalled that many of the latter were in poor financial shape. There is in addition the introductory point concerning the national municipal scene where municipalities generally were deemed to be in a relatively poor financial position. Further sobering insights can also arise when the questions of service level comparisons and northern cost differentials are considered.

G. NORTHERN COST DIFFERENTIALS

A short survey of northern cost differentials pertaining to the following items was conducted: food and groceries; utility costs; northern allowance payments; house construction costs; and land servicing costs. The aim of the survey was to identify ranges in cost differentials which might have been expected to apply to the costs of providing municipal services. Different groups of differentials were obtained for each item. The nature of the cost mix of municipal services emerged as a useful interpretative concept. Different cost mixes elicit different cost differentials. Cost differentials were noted for locations within the N.W.T. as well as between the N.W.T. and the provinces. The nordic index system developed by Dr. L.E. Hamelin (Hamelin, 1972) was found to be a suitable preliminary base for formalizing composite cost differentials potentially applicable to municipal services. According to this measure of 'northernness,' only limited variation was noted between most of the N.W.T. municipalities and most of the northern provincial selections. Significant variations were noted to exist for Inuvik and Churchill, and the southern provincial selections. Because of the relative crudeness of the service level/service cost analysis, it is only with regard to these latter extremes that the influence of cost differentials can be qualitatively defined, with reasonable confidence in their validity. Any attempt to develop more sensitive measures of service level should be accompanied by a similar effort to identify relevant cost differentials for municipal services delivered at various locations in the N.W.T.

H. SERVICE LEVEL/SERVICE COST COMPARISONS

Meaningful municipal service level studies are few in number on account of numerous difficulties associated with them. Many qualifications precede the service level/service cost analysis attempted in this study. These important qualifications, and many other important details, are omitted in this summary. The results of the analysis are included with a view to pointing out the nature of the difficulties to all the general practitioners in the field, and with the express hope that portions will not be plucked out of context to substantiate biased viewpoints. With feed back from the municipalities surveyed, the analysis may also form the basis for further and more rigorous research designed to help sophisticate the present assistance policy.

Street Lighting: This is a relatively 'clean' service area to account for but it is not an important item in municipal budgets. No strong evidence was found to indicate that the N.W.T. municipalities experience significantly higher costs in providing this service, or inferior service levels.

Garbage Collection: It was found difficult to identify any definite pattern in any of the data for this service, other than a slight indication that additional northern costs may be a factor where service levels are similar. Significant cost differentials were not evidenced by the data in its present form.

Fire Protection: Population size, and in particular a threshold of about 4,000, above which unit costs rose rapidly, was found to be an important factor for fire protection cost patterns. There were

indications that the smaller municipalities in the N.W.T. can obtain similar levels of service as their provincial counterparts for about the same per capita costs. However, for a relatively large centre such as Yellowknife, or in locations where service problems and costs are accentuated, such as at Inuvik, the pattern is different. In general, such communities must bear a greater financial burden than their southern counterparts to maintain a similar, adequate level of service.

Ambulance Service: Variable responsibility is the dominant factor in this service area, rather than variations in service level or the influence of special northern costs or difficulties. The only conclusion seemed to be that all municipalities, in the territories and the provinces, might benefit from a federal-provincial cost sharing program applicable to this service. Generally, any municipal expenditures in this area comprise an almost negligible portion of total expenditure.

Libraries: This service area is also not a major one in expenditure terms. As with ambulance services, little information was found to indicate marked discrepancies, between the provinces and the territories, in terms of costs or service levels.

Police and Bylaw Enforcement: Again, a large part of the variability in the apparent costs of providing these services relates to responsibility. Costs are incurred by N.W.T. municipalities only where the bylaw enforcement function is present. R.C.M.P. policing is free but the N.W.T. municipalities have expressed dissatisfaction with the level

of municipal policing carried out by the R.C.M.P.

Overall, the N.W.T. municipalities face smaller financial burdens for these services than municipalities in the Prairie Provinces. Also, from the service level measures employed here, it was difficult to conclude that large variations in service level exist between the N.W.T. and provincial groups. In B.C., where municipalities below 5,000 receive free R.C.M.P. services, no service level complaints were noted.

Public Works/Transportation Services: The available data evidenced a strong indication that most of the N.W.T. municipalities spend more in this service area to obtain a lower level of service in relation to the provincial selections. It was not possible to isolate the precise significance of the operating and capital assistance provided by governments, however. Operating grants may have inflated expenditures as much as higher northern costs. Generous capital assistance, the effect of which is buried in the municipalities' finances, may also act as a compensating factor for the apparent inter-jurisdictional differences. Varying priorities and necessities were noted as potential complicating factors. Intra-territorial cost differentials appeared to be significant in this service area and seemed to deserve attention in the form of variable percentage grant support.

General Government Services: Considerable interpretative difficulties were encountered in this service area. Apparently higher costs of providing this service were noted for most of the N.W.T. municipalities, however. It proved difficult to isolate the precise

sources of higher northern costs. Rather, it seemed that the higher levels in the N.W.T. accrued through increases spread across the whole list of the sub-categories studied for general government services. Some slight suggestions were noted, however, that salaries and employee benefits, office operation, advertizing, travel and telephone bills were above average contributors.

It is very difficult to establish meaningful service level measures in this area, but the ones included here indicated that Yellowknife, Hay River, and Pine Point provided high service levels for relatively low unit costs. Only Inuvik, by the measures employed here, was found to lie in a category of low service levels and high unit costs. On average, higher levels of expenditure in the N.W.T. seemed to be related to relatively high service levels. One possible influence behind this pattern is the high level of unconditional transfers provided to the N.W.T. municipalities. It is first applied to administration and large portions may reside there rather than being passed on to other municipal departments.

Recreation: This is another service area which can be characterized by murky responsibility patterns. It is also subject to highly variable financing practices - government grants, donations, user charges, general revenues. It seems to be accepted, in the N.W.T. and in the provinces, that the majority of recreation facilities and programs cannot be self-supporting. This has brought pleas for high levels of government assistance in the N.W.T., although this was not so prevalent for the provincial municipalities.

Certain special northern features bring about naturally greater

priorities for municipal recreation services in the N.W.T. Most of the N.W.T. municipalities do in fact tend to spend more on recreation services than their provincial counterparts, and part of the reason for this is relatively generous operating and capital assistance. In the provinces, municipal recreation appears to be almost a luxury service, higher levels of expenditure being present only for the more affluent municipalities.

Water and Sewer Services: This is a consistently large expenditure item in the budget of most N.W.T. municipalities. It is an area where intra-municipal service level differences are stark but where such differences are much less visible for all piped system service areas. Water and sewer services are also the object of high levels of capital assistance in the N.W.T. municipalities.

In the present analysis service level variations were assumed to be negligible, and attention was directed to revenues and expenditures. User charges resulted in a small range of average household costs and the N.W.T. municipalities were located about the middle of the range. Total revenues per capita indicated a much wider range however. The N.W.T. municipalities were positioned at the low end of this range, apparently because their low debt charge load obviated the need for high frontage tax revenues. Yellowknife emerged as the municipality with the lowest revenue per capita suggesting that increases in user rates would not be out of place.

In terms of operating expenditures, the N.W.T. municipalities displayed the highest levels of the selections studied. The lowest levels were present for northern locations with new, well-designed,

minimal maintenance systems. Most of the municipalities sampled in the N.W.T. and the provinces appeared to face significantly higher unit costs in this service area compared with large southern centres.

The significantly lower per capita debt charges present for the N.W.T. municipalities were taken to be a reflection of relatively generous government capital assistance in this area. As a result, although the operating costs of the N.W.T. systems are higher than in the provinces, the total expenditures, including debt charges, are in effect lower than for many of the provincial municipalities. It was suggested that the same influence was probably at work in other capital assistance service areas in the N.W.T.

The results from the inter-jurisdictional municipal finance comparisons indicated that the smaller N.W.T. municipalities seemed to be in a favourable position in comparison to the provincial selections while Yellowknife was in only a comparable, or similar, position. The service level/service costs analysis, because of the large number of qualifications, cannot purport to raise hard and fast conclusions. The analysis did suggest, however, certain situations where the N.W.T. municipalities appeared to be at a disadvantage in relation to the provincial selections from a service level/service cost point of view. At the same time, in other situations, the influence of relatively generous unconditional and conditional grant assistance, to the N.W.T. municipalities, was seen to cloud the issue of determining if they suffered from particularly greater costs or difficulties. Further research is required to definitely determine what is the stronger influence and to resolve what is,

according to the present research, an apparent tie position. The case for further, and greater, assistance to the N.W.T. municipalities (and to all provincial municipalities) is on stronger ground, however, when argued from the nation-wide fiscal imbalance position of municipal governments in relation to senior governments.

If it is the case that further assistance will flow from acceptance of the above position it becomes especially important in the N.W.T. to render the assistance in a proper manner. This can be achieved in several ways such as by devising more sensitive measures of need and developing incentive features. Foundation-type programs could also be operated whereby the government funds a service to a basic adequate level and municipalities decide their own priorities, and find their own funds, if further increases above that level are desired. Also, the special conditions may merit more than just matching grants by governments.

A dilemma arises in that further high levels of assistance to municipalities may suppress widely-based municipal initiative and the development of a sense of belonging to the community. Such commodities tend to be in short supply in the N.W.T. municipalities. High levels of assistance can also breed inefficiency in the management of finances in addition to promoting possibly wasteful allocation of financial resources. Intricate and sophisticated assistance and monitoring schemes will be required to subvert these dangers. (As one small example, it could be in the interest of the government to provide a portion of the further assistance in a manner which would encourage the raising of service levels in the poorer and less well-served areas

of an individual municipality. This could be achieved by varying the level of assistance provided according to those schemes which are planned to achieve large service level gains from low service level bases.) Much scope for resolving the dilemma also lies in the municipal political decision-making field, however, by promoting more powerful, but also more responsive and responsible municipal governments. This point also applies to all municipalities in Canada. The changing financial and decision-making process of municipal governments in the provinces in the past few decades has pointed up the need for extensive structural reforms. This literature (e.g. Plunkett, 1972) should be consulted with a view to implementation of the suggested reforms in the N.W.T. Because of the still early stage of municipal development and the unique relationship between the municipalities with the territorial government, and the federal government, there appears to exist in the N.W.T. a ripe environment for the implementation of these progressive reforms.

PART IV - CHAPTER 8

RECOMMENDATIONS FOR FUTURE RESEARCH

A. INTRODUCTION

In the course of the study, recommendations for future research have been stated or implied. The main recommendations are collected together and outlined in more detail in this chapter.

As stressed in the introduction, this study has focussed primarily on finances and services at the level of the municipality. The municipal level can be viewed as an intermediate, or meso-scale, level when it is realized that a municipality is also, at one and the same time, a component of the larger economic system which embraces senior governments and corporations, and, an aggregation of many separate households, businesses, industries, and individuals. If the municipal level is termed as meso- these other levels can be termed macro- and micro-levels respectively. To fully illuminate the comparative municipal scene it is also necessary to tackle analyses at these additional levels. On frequent occasions during the present study analysis had to be cut short because of the absence or paucity of results from research conducted at these levels. Future research strategy should place a high priority on tackling this issue, in addition to extending further effort on research at the municipal level. The following recommendations indicate some of the major areas of focus for future research at each level. Because of the strong inter-connections between the levels the division used may be somewhat artificial in places.

B. MICRO-SCALE RESEARCH

At the micro-scale, attention should be focussed on intra-municipal variations in municipal finances and services. The ability of individual tax-paying units to bear the burden of the property tax and user rate charges varies greatly within a municipality. Although mill rates may appear to be low by comparison with many southern municipalities this apparent advantage can be eroded at the individual level when other relatively large demands on available income, such as high food and utility bills, are considered. (This argument is set out in the taxation comparison presented in the Capital Budgeting Program, Town of Inuvik, N.W.T., dated September, 1973 and authored by Makale, Holloway and Associates Ltd. and A.E.S.L.). The degree to which higher salaries or wages or welfare payments offset these particular higher costs requires investigation for a sample group of tax-paying units within each municipality. On-going research, currently being sponsored by the government, into price variations and welfare levels in the N.W.T. communities, could be extended into the area mentioned above.

Marked intra-municipal variations in the level of municipal services provided also occur, most obviously in the area of water and sewer services, but also in several other less visible service areas. Future government assistance schemes could be deliberately designed to encourage improvements in this sphere. Such a policy would require some research effort into devising intra-municipal service level measures. This research could be tied in to similar work at the inter-municipal level.

C. MESO-SCALE RESEARCH

Uniform assistance schemes developed in an environment of extreme inter-municipal variability inevitably benefit certain municipalities to the detriment of others. Efforts to resolve this undesirable situation in favour of a more sophisticated approach could begin through research into: the development of more sensitive measures of municipal financial need; inter-municipal real cost differentials for a range of municipal services; and service level measures.

Relative Financial Need at the Level of the Municipality can be articulated through recognition of the importance of certain variables. Taxable assessment per capita is a useful differentiating variable but its utility is increased if assessment is broken down into several categories, isolating in particular, industrial, commercial, government property on which grants-in-lieu are paid, and residential property. Generally those municipalities with a higher proportion of industrial assessment tend to be better off and require less assistance than those with a high proportion of residential assessment.

In addition to the effect of the detailed composition of the tax base the details of population growth can also be significant in sophisticated an assistance scheme. Rate of growth of population is an important variable since if population growth is rapid, growth in per capita expenditures or revenues may lag resulting in a deterioration of service levels. Assistance schemes should be designed to cover any such gaps if they arise during a period of rapid growth. Such schemes should be amended when more normal growth patterns resume. Although

the rate of population growth is important the absolute increases involved should also be worked into assistance schemes. Even if rates of population growth are similar, the municipality experiencing the greatest absolute increase requires more favourable treatment in any assistance scheme, if service levels are to remain in step with growth. Because of the importance of population characteristics in many assistance schemes it would be desirable if attention was given to more frequent census-taking possibly even at a rate of more than once a year.

It would also be useful to introduce measures relating to the pattern of household incomes present within a municipality. Elaboration of such measures could be accomplished in conjunction with the micro-scale research mentioned earlier where allowance would be made for such items as imputed income from resource harvesting and similar income from subsidized housing and utilities. Naturally, municipalities with a high frequency of relatively low household incomes (after allowance for factors such as those mentioned above) warrants a higher level of assistance than those with a high frequency of relatively high household incomes.

Inter-municipal real cost differentials in the provision of municipal services is another desirable factor for inclusion in a more sophisticated grants scheme. The approach developed by Dr. Hamelin (See Hamelin, 1972) could prove to be a useful base for a research study into the nature of these differentials. The criteria used in this work could be expanded easily by inclusion of the results of the current research into social welfare levels and also by inclusion of the

data being accumulated through the development of the computer program, associated with the recent water and sanitation study (A Review of the Proposed Water and Sanitation Policy with Recommendations on Implementation, prepared for the Government of the Northwest Territories, by A.E.S.L., August 1973).

Service Level Measures constitute further useful variables in a sophisticated assistance scheme. Their most obvious application can be found in the area of foundation programs where senior government assistance is provided to maintain the existence of a basic service level, but the municipalities fund any further desired increment in the level of service. A research study directed at this variable could be instituted through a formal review of the findings of the present study. Time constraints have precluded the raising of feedback on this report from municipal officials in the municipalities surveyed. It would be most useful to distribute copies of the report to these officials and to later solicit and document their comments. Particular attention could be given to insights obtained on service level features, and the review process could thus form the springboard into a specific study of service level measures.

One of the major difficulties encountered in the present study was the standardization of the municipal financial data for the N.W.T. municipalities. Many benefits would flow from the presence of a standard data-reporting system, not only in terms of financial comparability,

but also if the information necessary for the continuing research of those aspects mentioned above were incorporated into the reporting system. This is a matter of basic importance to future research and development of sound municipal policy and it should receive the immediate attention of the territorial government.

Certain forces are currently gaining strength in the N.W.T. which make it timely to initiate research into the most suitable forms of municipal government by which to respond to these forces. The proliferation of resource developments in a relatively compact region, such as is emerging in the Mackenzie Delta at the present time, raises the need to consider the applicability of regional or district forms of municipal government. Some guidance in this task may be received from the experience with municipal districts in B.C. (such as Mackenzie, and probably Fort Nelson in the future), and the local government districts in Manitoba, the most recent example of which is Leaf Rapids. Tax transfer mechanisms as practiced between improvement districts and urban municipalities in Alberta may also suit particular situations.

The emerging regional councils of small native-dominated communities in the N.W.T. is another force requiring careful research attention to establish, first the desirability of, and, possibly as a second step, the best approach to, formalizing these councils into incorporated municipalities (the northern municipal council currently being developed in northern Saskatchewan may be of interest in this regard).

Additional forces are at work, in this context in particular, to spur research in this area. These are the impending land claims settlements and the possibility of more native reserves being set up in the N.W.T. This research can also be justified, however, in the wider context of the reform of the financial and decision-making process of municipal government in Canada. The growing literature on this topic (especially Plunkett, 1972) should be reviewed and interpreted in the light of possible application of the suggested reforms in the N.W.T.

D. MACRO-SCALE RESEARCH

The relevance of macro-scale research can be most easily appreciated by a consideration of the various approaches to promote home-ownership in the N.W.T. Many alternatives exist by which home-ownership could be encouraged. Though much less desirable than large front-end grants to encourage people to become home-owners, annual home-owner grants or tax credits reduce the property tax burden, which may be a discouraging factor. However, the tax burden could also be decreased by raising the level of conditional and unconditional transfers to municipalities or, by the senior government assuming greater financial responsibility for certain services. All these moves entail ramifications which would affect the property tax-payer eventually, through the burden of other taxes or impositions, such as income taxes, sales taxes, health premiums, etc. Similarly, although homeownership would also be encouraged by subsidized utilities, these subsidies involve costs in other areas, costs which may be economic or political, as in the case of further dependence on transfers from the federal government. Similar

arguments apply to other subsidies against higher northern living costs, such as food and freight rate subsidies.

There clearly emerges a need for research to determine the best allocation of financial resources in the N.W.T. to achieve a clearly stipulated set of long-term goals and objectives. This research would fall under the category of comprehensive social accounting. Preliminary work in this area has been undertaken by the Economic Staff Group of the Department of Indian Affairs and Northern Development (see Palmer, 1972, 1973). Most of this level of social accounting would focus on financial relationships within the N.W.T.

Macro-scale research is also required into the financial relationships between the N.W.T. and the outside world, particularly the rest of Canada. Studies are required to identify the whole rationale of transfers or grant assistance, not just as it affects federal/territorial matters, but also as it affects all intergovernmental relationships. The main question to be resolved is why should the majority of the revenues of senior government(s) be spent by lower levels of government, after the exercise of considerable control by the senior government(s)? This type of study is equally applicable to the situation in the N.W.T. of municipalities versus the territorial government, as in the situation of the territorial government versus the federal government.

Another important area of interjurisdictional macro-scale research relates to the issue of externalities. Rapid growth is presently a feature of the N.W.T. The growth brings benefits and costs. It is possible that the N.W.T. is experiencing more costs than benefits at the

present time, justifying a high level of federal transfers as a form of compensation for the social costs being borne by the N.W.T. For example, in some respects the N.W.T. could be viewed as providing a cheap, but burdensome, 'baby-sitting' service to many short- and medium-term southern transients. To resolve these important issues a wide-ranging study of the costs and benefits of growth in the N.W.T. is required. The study should aim to identify who or what region, municipality or group of individuals is bearing disproportionately high costs, or is reaping disproportionately large benefits. The study could also focus on possible control mechanisms such as regional income taxes or regional payroll taxes, to bring about the most desirable allocation of costs and benefits.

This separate summary presentation appears as Part IV of Volume I of the report. Volume I also contains parts on background information and the detailed results of the study. Volume II contains compilations of the financial statements of the selected municipalities. These compilations constitute the major data source for the study.

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APPENDIX A
WATER & SEWER CAPITAL ANALYSIS

	Mackenzie, B.C. 1966-1973 [1966- 1969 no debt charges, small pop.] 5 years	Hay River, N.W.T. 1967- 1973 7 years	Yellowknife 1967-1972 6 years [land assembly excluded]
1. Source: Revenue	86,660	117,547	66,466
2. Source: From Own Funds	- ¹	353,435 ²	-
3. Source: Grants	319,166	1,049,341	3,928,195
4. Source: Bank Loan & Debentures	2,044,210	926,925	880,373
5. Total Funds	2,450,036	2,447,248	4,875,034
6. Total Debt Charges	721,175	372,023	236,915
7. Annual Average Debt Charges	144,235	53,146	39,486
8. Total Possible Debt Charge	864,863	982,207	1,311,908
9. Annual Average Possible Debt Charges	172,927	140,315	218,651
10. Multiplication Factor	1.20	2.64	5.54
11. Annual Average Actual Per Capita Debt Charges	1. 41.93 2. 41.45	15.17 15.96	5.29 5.94
12. Annual Average Possible Per Capita Debt Charges	1. 50.31 2. 49.74	40.05 42.13	29.31 32.91
13. Effects of Grants and Revenue on Per Capita Debt Charge	1. 8.38 2. 9.29	24.88 26.17	24.02 26.97

¹There was some borrowing from other funds in 1966, but borrowing was later debentured.

²To be repaid with revenue from land sales in the self-liquidating funds.

Source: Financial Statements; compilation method described in accompanying text.

- Row 1. Source: Revenue. This includes capital expenditures for water and sewer systems from utility revenue, general revenue, land sales revenue, etc.
- Row 2. Source: Short-term Borrowing From Own Funds. This refers to temporary financing from other funds, which will be paid back through revenues (such as future land sales).
- Row 3. Source: Grants. Government or non-government grants for water and sewer capital costs.
- Row 4. Source: Bank Loans and Debentures - all funds upon which debt charges are to be paid.
- Row 5. Total Capital Funds over the years studied.
- Row 6. Total Debt Charges over the years studied. Debt charges paid on debentures issued before the study period are subtracted so the figure reflects the debt charge for the funds acquired during the years studied.
- Row 7. Total debt charges divided by no. of years studied.
- Row 8. Possible Debt Charge, assuming all funds were obtained by debentures or bank loan and repaid in a manner similar to the repayment of the actual debt.
- $$\frac{\text{Actual Debt Charges (Total)} \times \text{Total Funds}}{\text{Actual Debenture \& Bank Loan Funds}} = \text{Possible total debt charges}$$
- Row 9. Total possible debt charges divided by number of years.
- Row 10.
$$\frac{\text{Possible total debt charges}}{\text{Actual debt charges}} = \text{Multiplication factor}$$

This is the adjustment factor necessary to reflect the differences between possible and actual total debt charges in dollar terms per capita terms.
- Row 11. Actual average per capita debt. Two methods are used:

1. $\frac{\text{total of yearly per capita debt charges}}{\text{number of years}}$
2. $\frac{\text{total of yearly debt charges}}{\text{number of years}} : \frac{\text{total of yearly populations}}{\text{number of years}}$

Row 12. The product of the actual average per capita debt charge and the multiplication factor gives the average possible per capita debt charge.

EXPLANATORY NOTES:

Hay River:

The territorial government contribution is not reflected in Hay River's financial statements. According to the 1967 statement the amount would be \$1,000,000. This figure has been used, although it probably is actually greater as estimated costs are usually less than actual costs.

Hay River has set up self-liquidating development funds to account for capital costs. These are the residential extension fund, the commercial development fund and the highway development fund. Portions of the total water and sewer assets are in each fund, as are portions of the debt charges. Also the Utility fund, which accounts for the water and sewer system operation and maintenance, contains some water and sewer assets and debt charges. Figures given in the charts are the combined totals relevant to water and sewer from each fund.

Hay River tends to pay back large debentures over a relatively small number of years, which increases its yearly payments and per capita debt charges. Because of this, although its multiplication factor is about half of Yellowknife's, the difference between actual and possible per capita debt charges is about the same. Nevertheless, it is clear from the size of the multiplication factor and the amount of the actual and possible

debt charges, as compared to Yellowknife, that Hay River has obtained proportionately more of its funds by way of debenture.

Yellowknife:

The land assembly scheme asset additions are not included in this summary because, at this time, it is impossible to determine what amount of the assets are water and sewer items. The land assembly costs are financed largely by land sales until 1972 when \$700,000 worth of debentures were issued, and their inclusion will reduce the proportion of funds obtained by grants. From the present analysis, however, it is clear that Yellowknife has kept its per capita debt charge for water and sewer costs low by way of senior government grants. Also, Yellowknife, as compared to Hay River, tends to pay its debts over a longer period of time, keeping its actual and possible yearly payments relatively low.

Mackenzie:

Although the source of funds is calculated from 1966 on, and the first debentures were issued in 1967, debt repayments did not begin until 1969, giving a 5-year study period.