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ABSTRACT:

On 3 October 1986, the major part of the urban public transport services operating in the Tauranga — Mount Maunganui area was withdrawn. The Tauranga urban area has a population of approximately 59,000, is the seventh largest urban centre in New Zealand, and has a high proportion of elderly residents

The withdrawal of services, which were operated by Bayline Buses, came after several years of decline in patronage and in the level of services provided. A major factor in the withdrawal was the lack of financial support from the local authorities in the area. Without this local input, the bus services were not eligible for all of the central government subsidy provided through the Urban Transport Council (UTC).

Once the decision was made to discontinue the services, the UTC decided to carry out a study to assess the impact of the withdrawal upon users. A survey of passengers was undertaken in September 1986, prior to the withdrawal, to find out who was using the bus services and for what purpose. A number of respondents were approached again in May 1987 to see how they had changed their travel patterns, and to find out the ways in which they had been affected by the withdrawal of the buses.

The surveys showed that many former users had suffered inconvenience as a result of the withdrawal of the bus services and that a majority considered themselves to be worse off both financially and in general terms. A small number of users had experienced what they considered to be severe hardship as a result of being unable to make the journeys which they had previously made by bus. New services have since been introduced into the area but the future of these services is not guaranteed

The impact of the withdrawal of the bus services suggests that the UTC's current policy of providing subsidy only where a local contribution is forthcoming may need to be reviewed.

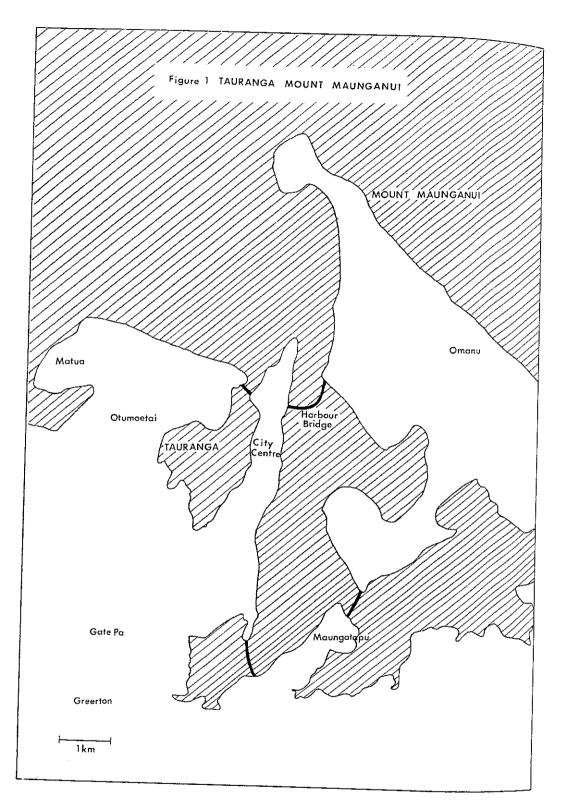
1. INTRODUCTION

- 1.1 On 3 October 1986, the major part of urban public transport services operating in the Tauranga Mount Maunganui area of New Zealand was withdrawn. The withdrawal of the bus services, which were operated by the Bayline Group of Tauranga, came after several years of decline in patronage and in the level of services provided. A major cause of the withdrawal was the lack of financial support from the local authorities in the area. Without this local input, the bus company was not eligible for all of the central government subsidy available through the Urban Transport Council (UTC).
- 1.2 Once the decision was made by the Bayline Group to discontinue the bus services, the UTC decided to carry out a study to assess the impact of the withdrawal upon users. A survey of passengers was undertaken in September 1986, prior to the withdrawal, to find out who was using the buses and for what purposes. Respondents to this initial passenger survey, who said that they were willing to take part in further research, were approached again in May 1987 to find out how they had changed their travel patterns and to what extent they had adapted to the withdrawal of the bus services.
- 1.3 This paper provides a background to the withdrawal of public transport services in the Tauranga Mount Maunganui area, and attempts to assess how and to what extent former public transport users have been affected by the discontinuation of bus services. The paper also documents subsequent developments in the provision of public transport in the area and discusses the implications of events in Tauranga for the design of future urban transport subsidy policy.

2. BACKGROUND

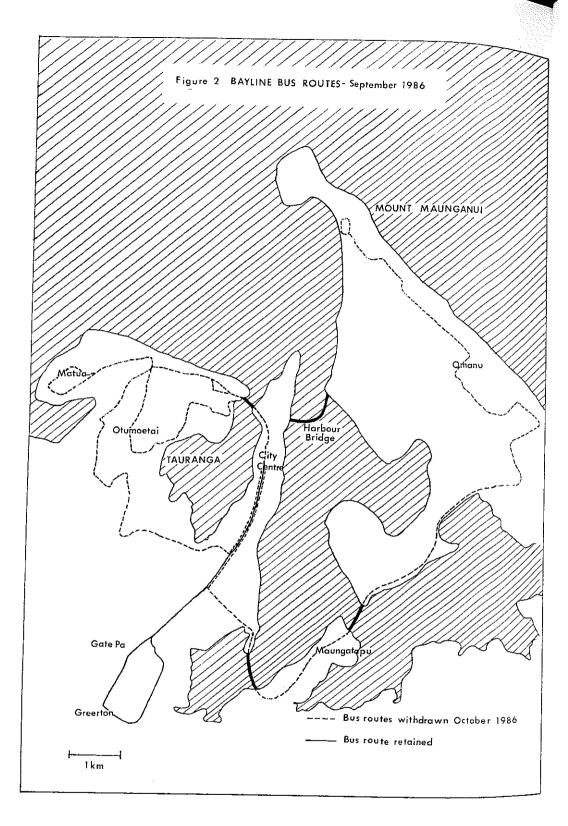
2.1 The Tauranga - Mount Maunganui Area

- 2.1.1 The Tauranga Mount Maunganui area is situated on the east coast of New Zealand approximately 220 kilometres south-east of Auckland. The Tauranga Urban area, which comprises Tauranga City, Mount Maunganui Borough and the adjoining urban areas of Tauranga County, is the seventh largest urban area in New Zealand and, at March 1986, had a population of 59,435. The map in Figure 1 illustrates the layout and major suburbs of Tauranga and Mount Maunganui. While the two centres are physically close they are separated by Tauranga Harbour. At the time of the withdrawal of the Bayline bus services, the road distance between Tauranga and Mount Maunganui was approximately 18 kilometres. However on 13 March 1988 a bridge across the Tauranga Harbour was opened, cutting the road distance between Tauranga and Mount Maunganui to approximately 5 kilometres.
- Zealand with low density residential areas and a well developed road network. Vehicle ownership is high with only 9.8 percent of households being without a car in Tauranga City and 11.5 percent in Mount Maunganui. This compares with 13 percent for New Zealand as a whole. The area has experienced considerable growth in recent years, much of it associated with the production and export of kiwifruit, and the population of the Tauranga Urban area increased by approximately 300 percent over the period 1951 1986. Tauranga Mount Maunganui is also a popular retirement area for people from all parts of New Zealand. At the March 1986 Census, 21.8 percent of the population of Tauranga City was 60 years of age or older while in Mount Maunganui Borough the figure was 21.4 percent. The equivalent figure for New Zealand as a whole was 15 percent.



2.2 <u>Public Transport in the Tauranga - Mount Maunganui</u> Area

- 2.2.1 The first recorded public transport in Tauranga started in 1867 when a coach service began operating between Gate Pa and the beach every Sunday. The year 1919 saw the commencement of the first motor bus service between Tauranga and Gate Pa, and in 1946 the Tauranga Bus Company was established with a timetabled service to Maungatapu. By 1972 this company had taken over a number of other firms and was operating a comprehensive network of services as the Tauranga Mount Maunganui Bus Company. In 1985, this company became the Bayline Group Ltd.
- 2.2.2 In 1976, the Tauranga Mount Maunganui Bus Company was operating eight main routes in the area. Frequencies on some routes were hourly or more frequent and a limited Saturday service was also provided. By 1982, however, as a result of rising costs and falling patronage, the company had been forced to reduce service levels and to cease operating Saturday services. By September 1986 the company was operating four routes, one of these running on only two days per week. The areas served by these four routes were Greerton, Otumoetai and Mount Maunganui, with Matua served only on Tuesdays and Fridays. The routes operated by the Bayline Group as at September 1986 are shown in Figure 2. On 3 October 1986, three of the four routes operated by the Bayline Group were withdrawn. The routes which ceased to operate were those which served Otumoetai, Matua and Mount Maunganui, while the route which served Greerton continued to operate.
- 2.2.3 The level of decline in bus services in the Tauranga-Mount Maunganui area is illustrated by records of bus kilometres operated and passengers carried. These records show that, from March 1981 to December 1986, bus kilometres operated fell from 124,600 per quarter to 11,200, while passenger numbers dropped from 139,000 per quarter to 20,700 per quarter, falls of 91 percent and 85 percent respectively.
- 2.2.4 The decision to withdraw the major part of the services was made by the Bayline Group in the face of increasing costs and declining patronage, factors



which had caused the earlier reductions in services. During the 1970's and 1980's the company had met losses incurred on urban services by cross-subsidy from charter work, and from urban passenger grants, which were unmatched subsidy payments from central government based on the level of service provided and passengers carried. However, by mid-1986, losses on urban services were estimated to be approximately \$100,000 per annum, a level which the company found to be unsustainable.

- 2.2.5 The payment of urban passenger grant subsidy was also being phased out and replaced with central government subsidy channelled through the UTC, the payment of which depended upon the relevant local authority sharing losses equally with government. Without this local contribution no UTC subsidy was available. This policy was introduced by the UTC because it considered that equal sharing of losses by central and local government fairly reflected the benefits enjoyed by each party, and because the Council believed that, if local authorities had to use rate payer money to support public transport, they would be more realistic about the type and level of services provided.
- 2.2.6 During the late 1970's and early 1980's, Bayline (then the Tauranga Mount Maunganui Bus Company) made a number of approaches to the relevant local authorities, Tauranga City Council and Mount Maunganui Borough Council for financial assistance for the services. However, both authorities declined to assist and, without their contribution, matching subsidies were not available from the UTC. The Tauranga City Council indicated that although it considered that public transport was needed, it believed that the market should be left to provide the necessary services. Urban passenger grant subsidies continued but were progressively reduced, being withdrawn completely on 31 March 1988. Urban passenger grants totalling approximately \$50,000 were paid to Bayline in the 1982/83 financial year to support urban services but this had fallen to approximately \$12,200 by 1985/86, the financial year prior to the withdrawal of the bus services.

2.2.7 Other public transport in the Tauranga - Mount Maunganui area was, at the time of the withdrawal of Bayline bus services, limited. The other services comprised a ferry between Tauranga and Mount Maunganui, operated by Tauranga - Mount Maunganui Ferries, and a New Zealand Railways Corporation (NZRC) bus service between Tauranga and Te Puke. However, few of the trips being made on Bayline bus services could have been made using these services. Tauranga City also has a Total Mobility scheme under which disabled persons receive discount vouchers for taxi use. However, these vouchers are only available to people who, because of their disability, are unable to use public transport. This scheme was not therefore able to cater for former bus users.

3. SURVEYS

3.1 <u>Introduction</u>

3.1.1 The decision by the Bayline Group to withdraw the major part of its urban bus services was the first example in New Zealand's recent history of a major centre being left almost entirely without public transport. For this reason, the UTC decided to carry out a survey of passengers using the buses. The survey was intended to obtain information on the travel patterns and characteristics of existing passengers and, through a follow-up survey, to see how these passengers adapted to the withdrawal of services. The work was also intended to provide an opportunity for the UTC to assess its policy of requiring local authorities to contribute to public transport losses before matching UTC subsidy was provided.

3.2 Initial Survey of Bus Passengers

3.2.1 The first survey was undertaken on Friday
19 September 1986, just over one week before the bus
services were to be withdrawn. Passengers on all
inbound services, on routes which were to be
withdrawn, were asked to complete a questionnaire
while they were on the bus, and hand it to a survey
operator as they got off. Young children travelling
with adults were not surveyed but all other
passengers, including

older school children and students, were asked to complete a survey form. The survey questionnaire contained seven questions seeking information concerning, among other things, the age group, sex and occupation of the respondent, and the origin, destination, and purpose of their bus trip. It also asked how often the respondent used Bayline bus services, how he or she expected to travel when the services were withdrawn, and whether he/she would be willing to take part in further research. Respondents were also invited to comment upon public transport in their area and on their reaction to the withdrawal of the Bayline bus services. Some publicity had been given to the survey through the press and radio and passengers were generally happy to participate. A total of 196 questionnaires were returned and only three passengers refused to complete a survey form.

- 3.2.2 Analysis of the results of the initial survey show that the majority of passengers using Bayline buses on the routes which were to be withdrawn were 'captive' users who had no readily accessible alternative means of transport. The majority of users were female (73 percent), and most were in the 15-29 year age group (35 percent) or 60 years and over (28 percent). Forty one percent were in full or part-time employment, with the other major occupational groups being the retired (22 percent) and housewives/homemakers (21 percent). Shopping/personal business (43 percent) and work (34 percent) were the main journey purposes with trips to the doctor or hospital also being of significance (11 percent).
- 3.2.3 Off-peak services were just as heavily utilized as peak services and the destination of most passengers was the centre of Tauranga. The majority of the passengers were frequent users of the service, 41 percent travelling every day and 37 percent making 2-3 trips per week. (The figures on frequency of use relate only to the bus services which operated every weekday the Matua service, which ran only on Tuesdays and Friday, was excluded from this analysis). When asked whether they would continue to make the same trips after the bus services were

withdrawn, 65 percent of passengers said that they would. However, the majority of these respondents did not know how they would travel although a number of other modes were mentioned, for example taxi (13 percent), walk (17 percent), bicycle (11 percent), and car passenger (8 percent).

- 3.2.4 Respondents were also given an opportunity to make comments or suggestions about urban transport in Tauranga. A total of 150 of the 196 respondents took the opportunity to do so. As would be expected, all were negative. The comments included a number of suggestions for alternatives to the present system for example minibuses, and a wide range of reasons for retaining the bus services. The expected effects upon individuals ranged from minor inconvenience to serious hardship, depending largely upon the age of the respondent and the availability of alternative transport.
- 3.2.5 Respondents were asked at the end of the initial survey whether they would be willing to take part in further research. Of the 196 passengers who completed questionnaires in the initial survey, 96 indicated that they would be willing to take part in further work. These respondents provided the sample for the follow-up survey.

3.3 Follow-up survey of bus passengers

- 3.3.1 The next stage of the work in Tauranga was a follow-up survey of bus passengers who participated in the initial survey. The follow up survey was undertaken approximately six months after the withdrawal of Bayline bus services and was intended to obtain information on how passengers had adapted to their new situation. Six months was thought to be sufficient for bus passengers to adapt their activities and travel patterns to the withdrawal of services.
- 3.3.2 The follow-up survey was conducted by mail in May 1987. Ninety six survey questionnaires were distributed, and a total of 73 replies were received, giving a response rate of 76 percent. Analysis of the results of the follow-up survey indicated that

those who took part in the follow-up survey were generally representative of those participating in the initial survey. While it is possible that those who had been particularly affected by the withdrawal of the bus services were more likely to participate in the follow-up survey, the results are still considered to be valid and to fairly represent the impact of the withdrawal of services upon some sections of the Tauranga - Mount Maunganui community.

3.3.3 In the follow-up survey respondents were asked a number of questions relating to changes in their travel behaviour and activity patterns which resulted directly from the withdrawal of the bus services. The results indicated that 79 percent of respondents were still travelling to the same places that they used to visit using Bayline bus services, and that the majority of these people were making these trips at the same frequency as they had when using the buses. Table 1 below illustrates the ways in which trips were being made. The table shows that travelling as a car passenger was the most common way of replacing former bus trips, along with taxis and other bus services. The table also contains results from the initial survey which allow a comparison of the way in which individuals expected to make their trips, and how they actually travelled. The comparison reveals quite significant differences between their expectations and actual behaviour.

TABLE 1

MODE OF TRAVEL USED AFTER THE WITHDRAWAL OF BAYLINE BUS SERVICES - COMPARISON OF EXPECTED AND ACTUAL (%)

Mode of Travel	Expected	Actual
Car driver Car passenger Taxi Other Bus Ferry Walk Motorbike Bicycle	4 8 13 0 0 17 2	9 26 14 12 3 7
Combination of modes	17	12

- 3.3.4 Taxis appeared to be used to the extent expected but trips made as a car driver and, more particularly, as a car passenger, were higher than anticipated. Trips made by motorbike and bicycle were lower than expected. The follow-up survey also revealed that some respondents were able to make trips using other bus services. These trips were made on a service which began operating after the withdrawal of the Bayline services in an area which Bayline had originally served. The introduction of this service was not anticipated when the initial survey was carried out. Respondents were also asked whether they travelled to any different places once the bus services had ceased, 33 percent said that they did make trips to other destinations to replace their bus trips. Of these, the majority were making these trips by taxi or as car passengers.
- 3.3.5 Several questions in the survey sought information about changes in activities as a result of the withdrawal of the bus services, and whether there were things which respondents could not now do. Even though the survey results indicated that most people were still making the same trips as they had done by bus, the majority of respondents (63 percent) considered that they had changed their activities as a result of the withdrawal of the services, and 64 percent said that there were things which they could not now do. Respondents indicated, for example, that they now did more shopping and personal business locally (32 percent), had given up their jobs or changed their hours of work (10 percent), or made less visits to the doctor or hospital (15 percent). A number of respondents indicated that they were not now able to visit friends and relatives (29 percent), go shopping (29 percent), or visit the doctor or hospital (21 percent).
- 3.3.6 The results from these questions should, however, be treated with caution. In most cases, it is more likely that most respondents were not able to shop or visit friends or do other things quite as often or as easily as they could when the buses were operating, rather than not being able to undertake these trips at all. The results also indicate that some respondents may have perceived that they were worse

off than their actual travel behaviour suggested, perhaps because of the extra difficulty in arranging trips. Certainly 77 percent of respondents stated that they were worse off as a result of the withdrawal of the bus services, although the majority of respondents seemed to be making almost as many trips.

- 3.3.7 The follow-up survey also showed that few respondents had made major changes to their lives as a direct result of the removal of the bus services. For example, only 4 percent of respondents had learned to drive, 7 percent had bought cars, while 4 percent had obtained a motorbike and 14 percent a bicycle since the cessation of services. However, comment from one respondent indicated that the withdrawal of the buses had been a major factor in her decision to move house, and a number of respondents stated that their original choice of home had been influenced by the presence of public transport services. Other results from the follow up survey indicated that a majority of respondents (57 percent) used taxis more, while 63 percent were spending more money on travel since Bayline services had ceased to run. Ninety percent said that they would use a bus service if a new one was started and just over half of these people said that they were willing to pay twice the original fare for the service.
- 3.3.8 The comments which were received indicated that respondents were experiencing varying degrees of difficulty as a result of the withdrawal of services, ranging from moderate inconvenience to severe hardship. A small number of respondents commented that they were experiencing a dramatic change in lifestyle, unable to make even a small number of trips. This applied particularly to elderly people who did not have families or friends close by to assist them. Several elderly people commented that the withdrawal of the bus services had left them 'marooned' in their own homes. Many respondents commented that they now had to rely heavily upon family and friends for lifts and, while this allowed them to remain mobile, it caused inconvenience for both parties and a considerable loss of independence for the respondents. Many people also commented that, although taxis were available, they could not afford to use them regularly, if at all.

3.4 Summary of Survey Results

- 3.4.1 The impacts of the withdrawal of Bayline bus services from the Tauranga Mount Maunganui area are summarised below:
 - a significant number of former bus users have suffered some degree of inconvenience or hardship as a result of the withdrawal of Bayline bus services, generally in the form of reduced mobility or loss of independence.
 - the majority of respondents in the follow up survey indicated that they had changed their activities as a result of the withdrawal of the buses. For example, some were doing more shopping locally, while others had had to reduce or give up social and recreational activities or change jobs or hours of work. Few respondents had bought cars or bikes indicating that these may not be viable options for many of them.
 - most respondents to the follow-up survey considered themselves to be worse off both financially and in general terms as a result of the withdrawal of the bus services.
 - a small number of former bus users appear to have experienced serious inconvenience or hardship as a result of the buses ceasing to operate. This group are primarily the elderly who are unable to drive, who cannot afford to use taxis regularly, and who do not have families and friends nearby to assist them.

4. RECENT DEVELOPMENTS IN TAURANGA

4.1 As discussed earlier in this paper, public transport in the Tauranga - Mount Maunganui area in September 1986, other than that provided by Bayline, was limited and provided little opportunity for bus users to replace their trips. However, other transport services have developed in the Tauranga area since the withdrawal of the Bayline services which have, to some extent, met some of the transport needs of residents.

- The first development was a bus service to Matua and Otumoetai, areas with a high proportion of elderly residents. This service was introduced by the Bayline Group and was available to Bayline Travel Club members. It ran on Tuesdays only and provided an off-peak return trip into central Tauranga for shopping and other purposes. To use the service, passengers had to pay a small annual fee and fares on the bus were higher than on the previous services. The bus service appears to have been quite well patronised and it continued to operate until June 1987.
- 4.3 In June 1987, a new bus service run by G.W. Taylor Industries Ltd, commenced operation. The service was introduced by a local businessman and city councillor, Mr G.W. Taylor, who stated that he would provide financial support to get the service going but that, after a trial period, it would have to become self supporting. The service operated on a loop route through Otumoetai and Matua and into the centre of Tauranga. It was to operate on weekdays from 7 am to 6 pm at approximately an hourly frequency. No services were planned for other areas of Tauranga or Mount Maunganui. Approval for the services was given by the Licensing Authority and the service began on Tuesday 2 June 1987. Some minor changes were made to the timing of early morning services but apart from these amendments, the service operated as proposed. Information received from the operator in November 1987, five months after the commencement of the service, indicated that, after a slow start, patronage was increasing and was expected to continue to do so. However, although retailers had sponsored a free shoppers bus for some months and advertising space in the vehicle had been sold, the service continued to make a financial loss. The local authority, Tauranga City Council, had not made a financial contribution to the upkeep of the service although the operator believed that this would be essential if the service was to continue. At the time of writing this service is still operating.

- 4.4 A further development has been the construction of a bridge across the Tauranga Harbour, from Tauranga to Mount Maunganui. The bridge opened on 13 March 1988 and reduced the road distance between the two centres from approximately 18 kilometres to about 5 kilometres. The opening of the bridge will obviously allow improved access to Tauranga for residents of Mount Maunganui, and vice versa. Since the bridge has been opened the Bayline Group has introduced a bus service between Mount Maunganui and central Tauranga.
- the needs of former bus users. However, early developments have been limited to the Otumoetai and Matua suburbs of Tauranga. Mount Maunganui residents have only recently been provided with new services. The future of the services to Otumoetai and Matua also seem uncertain as the current operator has indicated that he will not continue in the long term if the services do not become financially self supporting. With the current attitude of the local authorities in the area, that subsidies should not be provided and that the market should determine the provision of services, the future of public transport in Tauranga cannot be guaranteed.

5. SUMMARY AND CONCLUSIONS

The major part of the public transport network in the Tauranga - Mount Maunganui area was withdrawn in October 1986. The bus services, operated by the Bayline Group of Tauranga, were withdrawn because of falling patronage and increasing costs which resulted in financial losses the company could not support. The local authorities in the area did not provide subsidy to support the services and this lack of a local contribution meant that no matching subsidy was available from the UTC.

- As a result of the withdrawal, the UTC decided to undertake a study of Bayline bus passengers to try to gauge the impact of the withdrawal upon their travel patterns and activities. The study showed that many users had suffered inconvenience as a result of the withdrawal of the services and that the majority worse off both considered themselves to be financially and in general terms. A small number of former users had experienced what they considered to be severe hardship as a result of being unable to make the journeys they had previously made by bus. Many of these people were elderly and generally did not have family or friends nearby who were able to provide alternative transport. The findings of the UTC's work in Tauranga are similar to those from work carried out in the UK (Oxley, 1982) where the effects of the withdrawal and reduction of rural bus services was examined. This study concluded that 'the majority of former bus users considered themselves adversely affected by the service cuts, many experienced inconvenience and a very few, mainly elderly people without cars, lost their only means of individual mobility.'
- 5.3 New bus services have been introduced, in June 1987 in Otumoetai and Matua and more recently in Mount Maunganui. It is too soon to judge whether the Mount Maunganui service will be successful but the last information received concerning the route through Otumoetai and Matua suggests that this service is continuing to make a loss. Without financial support from the local authorities in the area the future of these services cannot be guaranteed.
- There were several reasons for the withdrawal of the bus services; the Bayline Group had reduced service levels on a number of occasions during the late 1970's and early 1980's and, inevitably, patronage declined also. At the same time, grants from central government were being phased out and replaced by a scheme under which subsidy was provided on a matching basis that is, the UTC would match the contribution made by a local authority. Where a local authority did not make a contribution, the UTC would not provide subsidy. The decision to phase out central government operating grant and replace it by the matching subsidy scheme was made by the UTC on the

grounds that this sharing reflected the relative benefits received and, that if ratepayer money was being used, local authorities would ensure that cost-effective services were provided.

- 5.5 However, many authorities have chosen, for a number of reasons, not to share this funding responsibility with the UTC. This is because a number of authorities believe that funding public transport is a central government responsibility, while others have indicated that they cannot afford to support public transport. Others, like Tauranga City, believe that the market should provide the necessary services and that no intervention is necessary.
- operations outside New Zealand's four main centres, suggests that service levels and passenger numbers have generally been declining over the past six years. The decline has become more marked since 1986 but events in Tauranga have perhaps been the most dramatic to date. A number of factors have contributed to the decline in the level of private bus and ferry operations in New Zealand's smaller centres, for example, increasing car use and the general downturn in the economy. The phasing out of urban passenger grants and the refusal of a number of authorities to take over responsibility for funding has obviously played a part in this decline.
- 5.7 The UTC is currently reviewing its subsidy policies with the intention of completely revising the present system. The effects of the policy of phasing in the sharing of subsidy responsibility upon the level of public transport services provided in New Zealand's smaller centres must be taken into consideration when this review is carried out. The question of whether it is equitable for the UTC to withhold subsidy funds from a public transport operator when a local authority refuses to comtribute its share, needs to be addressed before any new subsidy scheme is designed.

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