

AFTERMATH

***The Tasman Bridge
Collapse***

Criminological and Sociological Observations

Janet Whelan
Elizabeth Seaton
Eric Cunningham Dax



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by
Janet Whelan
Elizabeth Seaton
Eric Cunningham Dax

on behalf of
E.V. Knowles and the Research Committee



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Foreword

When on 5 January 1975 the coastal steamer *Lake Illawarra* collided with the Tasman Bridge, a crisis resulted which was quite unlike those due to fire, pestilence or famine in which there is considerable loss of life and devastation. In this case a city was suddenly cut in two and the resulting disorganisation was due to the destruction of the only direct means of communication between the two halves of the city, and a complete disruption of personal, community and occupational life.

The police force was intimately involved with the preservation of public order and in providing assistance. The situation also gave a unique opportunity to examine the development of the pattern of crime and offences and to study the adjustment made by the defaulters compared with the population in general.

Such a research would have little value unless a wider sociological survey was also undertaken in conjunction with the criminological study.

I have to thank the various government departments who willingly participated in this program, the social agencies involved and the three co-authors who have produced the report on my behalf.

E.V. Knowles,
Commissioner of Police,
Tasmania.

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PART ONE
THE BRIDGE CRISIS

The bridge crisis

The accident

On Sunday 5 January 1975 at 9.30 p.m., Hobart was divided in two, when an interstate freighter loaded with zinc concentrate collided with the Tasman Bridge, destroyed two sets of piles and caused the collapse of 127 metres of decking. In the process it sank in nearly 30 metres of water. So sudden was the occurrence that four cars ran over the gap into the River Derwent. Five occupants were killed, while several others managed to get out of the two cars which were still hanging precariously on the edge of the gap.

Perhaps the accident can be best described by a quotation from the Hobart *Mercury* on the following morning:

Tasman Bridge Disaster

More than 10 people died last night when a 10,000 ton ship, the *Lake Illawarra*, knocked a section out of the Tasman Bridge and sank in more than 80 feet of water in about 10 minutes.

With the bow already submerged under the weight of the collapsed bridge span the *Lake Illawarra's* stern pointed skyward, seconds later it had sunk in a cloud of spray.

Few could fully comprehend the meaning of the disaster, the lives lost, the destruction of both the *Lake Illawarra* and the Bridge itself and the huge traffic problems which will face Hobart residents for months, perhaps years to come.

There was an air of unreality about the disaster.

Although the possible outcome of a bridge collapse had often been debated by many of the people of Hobart, the occurrence was not sufficiently seriously considered for any preparations to have been made in advance. The accident nevertheless was unbelievable and when first told people laughed at the information as a poor joke, then became bewildered, apathetic, frustrated

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or angry, according to their individual reactions to a crisis.

Many people had seen the vessel pass surprisingly close to the shore as it approached the bridge and some witnessed the collision and the cars go over the gap. A number of small craft quickly went to the scene, many members of the crew were rescued from the water but seven were killed or drowned.

After their recovery from the initial shock people began to examine the effects the crisis might have on their lives and grew increasingly vocal and resentful. As an example, the Prime Minister, who was travelling in Holland on official business, made an explosive statement for which he later apologised. Many people believed as the only explanation that the captain was drunk. In fact it was publicly announced a short time later that a blood test showed no alcohol to be present.

A court of marine enquiry was convened under two judges and the decision was read on 30 April 1975. The court gave the opinion that the master was guilty of misconduct in the form of careless navigation and ordered that his Certificate of Competence be suspended for six months.

The population involved

TABLE 1 Population distribution 1974

WESTERN SHORE

Hobart	52,500
Glenorchy	43,900
Kingborough	7,400

(Kingborough is included in the Hobart Police Area)

EASTERN SHORE

Clarence	40,760
----------	--------

(included in the Bellerive police area)

Until the date of the accident the 1,025 metre Tasman Bridge had been the vital four lane link which joined Hobart to the

eastern shore suburbs and the airport.

Population estimates for 30 June 1974 (see Table 1) illustrate the east-west population distribution.

The destruction of the bridge meant that the inhabitants of Clarence and the towns further afield were plunged into comparative isolation. They could still get to the western shore, but a few minutes drive across the bridge was now replaced by the need to queue for ferries for perhaps an hour or more at peak hours, or to drive many miles upstream by a circuitous route to an older crossing and this too took another one and a half hours or more. Ferry passengers might use their cars to get to the eastern terminal and park them in the streets some distance away, but once disembarked on the western shore, many had then to spend further time walking to work.

Had the Clarence Municipality developed its own industries and business on a larger scale, the temporary loss of the bridge would have been bad enough, but the situation was made worse since the east bank area was almost exclusively a dormitory suburb with a large labour force that had to cross the water every day to its work places on the western shore.

This lop-sided development was also reflected in a number of other fields: for instance the major tertiary education institutions, the private schools and the hospitals are on the western shore. There had been no decentralisation of government administration, and the lack of eastern shore offices also applied to insurance companies, banks, solicitors, medical specialists, dentists and many others.

It is useful briefly to trace the development of Clarence and its relationship to Hobart. The early settlers in Hobart in 1804 were separated from the eastern shore of the Derwent River by almost one kilometre of deep water. This barrier determined the pattern of growth for the next 140 years. In 1942 Hobart and its suburbs had a population of 65,000 on the western shore whereas Clarence had only about 4,400. The key to the retardation of

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development was that the only bridge at that time, though built in 1830, was 20 kilometres upstream and situated on the Hobart to Launceston road.

Since 1943, when the eastern suburbs were linked directly to Hobart by a floating arch bridge, with a lift span near the western shore, the population growth has been rapid, as shown in Table 2.

TABLE 2 Population of Clarence

December 1942	(estimated)	4,400
June 1954	(census)	12,604
June 1961	(census)	23,140
June 1964	(estimated)	28,000

In 1964 the multiple arch Tasman Bridge was opened, which provided four traffic lanes; while by a system of lights and signals a three-to-one pattern was more recently evolved to deal with the morning and evening peak traffic. The new bridge was located close to its predecessor which was towed away and demolished at sea. The further growth of the Clarence Municipality has been considerable, as shown in Table 3.

TABLE 3 Population of Clarence after bridge erected

June 1966	(census)	30,236
June 1971	(census)	37,104
June 1974	(estimated)	40,760

Characteristics of the area

Clarence is a dormitory suburb and its extraordinary growth since 1943 has had little to do with any industrial or commercial development. The bridging of the Derwent in 1943 and 1964 should have overcome the eastern shore difficulties and promoted industrial growth, but this did not occur (see Table 4).

The comparisons in terms of the manufacturing and retail sectors indicate that the main centres of these activities are all

on the western shore and that a large proportion of the Clarence labour force needs to travel across the river every day.

TABLE 4 Manufacturing establishments by area 1972/1973

Area	Location	Establishments (No.)	Employment (No.)		Total	Wages (\$'000)
			Male	Female		
Hobart	Western	152	2,540	658	3,198	12,505
Glenorchy	Western	102	5,418	1,223	6,641	29,110
Clarence	Eastern	25	253	59	32	844

The retail trade figure is somewhat similar (see Table 5).

TABLE 5 Retail establishments by area 1973/1974

Area	Establishments (No.)	Employment (No.)		Total	Wages (\$'000)
		Male	Female		
Hobart	959	4,036	4,560	8,596	26,063
Glenorchy	369	1,071	1,000	2,071	5,118
Clarence	217	558	554	1,112	2,343

It is also of interest that Clarence had a relatively young population (see Table 6) which often went to the western shore for its amusements.

TABLE 6 Population by age as at 30 June 1971

Area	Persons Under 21 Years	Total Population	Per cent Under 21 Years
Hobart	18,551	52,426	35.4
Glenorchy	18,663	42,651	43.8
Clarence	17,064	37,104	46.0
Tasmania	163,503	390,413	41.9

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Of the 17,064 persons in Clarence under the age of 21 years, 4,312 were aged 10 to 14 and 3,472 aged 15 to 19.

Travel patterns before the accident

At one stage no ferries were available but in the year before the crisis a private operator had put two small boats into service part-time. They were mostly engaged on charter work and were licensed for liquor sales, a fact which is important to the later considerations.

In 1974 the average daily east-west travel on work days across the Tasman Bridge was 21,500 vehicles with an average occupancy of 1.6 persons and the west-east travel was the same, though on occasion the count ran as high as 25,000 vehicles. Therefore there could have been more than 34,000 persons crossing in each direction. These figures illustrate the almost complete dependence of the population for its communications upon the Tasman Bridge. For this reason the roadways had been poorly developed, and therefore after the bridge collapse a major highway construction program was required for the use of road transport.

Finding alternative transport became the most outstanding problem which followed the accident; it is discussed later in the paper.

PART TWO
DISASTERS AND THEIR EFFECTS

Disasters and their effects

General features of disasters

No account of a city being suddenly separated into two halves was to be found. The available literature of disasters can be roughly classified into two divisions, the one dealing with the calamities themselves and the other with crisis behaviour. The material on crime other than looting appears to be small. The best known studies came from the Disaster Research Center of the Ohio State University, such as those of Dynes and Quarantelli (1968, 1970).

If war is excluded, disaster usually refers to natural disasters, especially those caused by earthquakes, tidal waves, volcanoes, tornados, floods, hail, drought, landslides, avalanches, fires and epidemics. To these must be added the more localised disasters involving buildings, bridges, trains and aeroplanes. These have been described and defined (D'Albe, 1970; Finniston, 1969; Wolfenstein, 1959). They are mostly associated with death and injury, destruction of property and possessions, loss, misery and bereavement.

The prevention of disasters, planning for their management and the disposition of the public utilities have also been described (D'Albe, 1970; U.S. Department of Health Education and Welfare, 1972; Personett, 1968; Smith, 1969; Kennedy, 1969).

Certain fairly well established rescue patterns have been evolved for dealing with these disasters (Yuttsy, *et al*, 1969; Birnbaum, *et al*, 1973) in which institutions such as the Red Cross and the Salvation Army play a large part in the modifications of group behaviour by the sympathetic provision of essential needs. Various means of crisis intervention have been studied, together with the individual and group behaviour in these fields.

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They have been reviewed in useful summaries by Hill (1958) and Miller (1963), while the Harvard School (Caplan, 1964) has added to the work on this subject, and on crisis theory in general. Grief reactions and bereavement have increasingly been recognised as important subjects for study in relation to disasters since the original writings of Eliot (1930) and Lindemann (1944).

Others have mentioned the problems arising from disruption in communications at these times and especially separation from the other members of the families and the associated uncertainties which arise (Form and Loomis, 1956). These findings have in return advanced the means of studying disaster and the subsequent social reactions (Fritz, 1954; Campbell and Stanley, 1966; Killian, 1954; Drabek, 1969).

Barton (1969) considered basic dimensions of collective stress situations as — scope of the impact
speed of onset
duration of the impact itself
social preparedness
and analysed various collective stress situations in this way.

Looting after crises was discussed by Dynes and Quarantelli (1970). When looting was compared in natural disasters and in civil disturbances it appeared that the crime is often the work of local people, is common and is selective in civil disturbance; but in disasters it is rare, with fewer participants and they are usually outsiders.

It has been suggested that when looting is reported after a disaster the crimes are sometimes those of routine burglary labelled as looting and that the punishment is correspondingly increased (Yuttsy, 1969). In the same paper Yuttsy pointed out that after disasters social control functions assume new dimensions. Normal arrest and court trial procedures are often suspended and minor infractions are likely to be ignored. One could suppose that in times of crisis many cases are not reported at all, and if so this might suggest a diminution of, for instance, property offences when this was not the case. On the other hand Personett (1968)

says 'the average citizen frequently neglects his responsibility to cooperate in providing information or reporting crimes . . . In any disaster you will find this is no longer true and should be prepared for a flood of citizen volunteers.'

The reorganisation of the police forces may also be of importance; Kennedy (1969) said: 'The belief that looting will be widespread has certain important consequences for the police. The belief leads to the commitment of police personnel to detect such behaviour.'

Again such personnel might be more efficiently used in realistic disaster tasks, such as traffic and crowd control. However if the police did not take such measures they would be severely criticised by other community officials who have similar expectations concerning what should happen.

Communication is often noted as a most important item in the study of crises. In regard to strategic bombing and German morale, Form and Loomis (1956) observe:

Transportation seems to have been the critical public utility for the morale of civilian populations. Its disruption lowered morale more than interference with the functioning of other utilities . . . sociologists confronted with this finding would suggest the hypothesis that disruption of communication facilities prevents urban groups from supporting their members, delays the evaluation and cognition of the disaster and disrupts such social systems as families with scattered members.

It seems that the emotional reactions to disaster appear to be intensified by experiences of separation from other family members.

Killian (1954) also points out that death, injuries, destruction of property, and disruption of communications, all acquire importance principally as departures from the pattern of normal expectations upon which the individual builds up his activities from minute to minute.

Special features of the Hobart Bridge crisis

The Hobart bridge crisis has enough differences from disasters and crises elsewhere to be of some special interest for comparison and study. Although comparatively minor in loss of life and damage, it presented a problem beyond the capability of the community to resolve.

Yutzy (1969) wrote:

Experience in a number of disasters suggests that neither severe danger nor loss of life or property automatically constitute disasters at the community level. It is only when something happens which is seen as making the achievement of valued ends problematical that destructive changes in social relations occur. It is only when an event is seen as challenging the underlying assumptions which give meaning to social activities that we see adaptive responses on a large scale.

The accident occurred on a Sunday evening after Christmas when there was little traffic crossing the bridge. Had it been a Monday morning later in the year, the occupants of some hundreds of cars would have been endangered. Many people were on holiday, the school term had not yet commenced and numerous business undertakings were still closed for the Christmas vacation. Thus there was a sense of remoteness and disbelief initially and the emotional disturbance only escalated over the next few weeks.

A total of five persons were lost in cars and seven seamen from the *Lake Illawarra* when it hit the bridge. In itself this is only a very small death rate compared to that which might have been or to the natural disasters. No personal possessions were destroyed, there was nothing for the community to do towards clearing debris, providing rescue operations, clothing, shelter or aid. The Salvation Army and Red Cross, though geared to disasters, could find almost no way in which to help.

There were no heroes, no dictators, no rescues after the first few hours, no riots, no looting, almost no emergencies, no famine, no infection and the continuing fear that the disaster would strike again was almost non-existent. Moreover there was

no need to call on the hospitals and the police were hardly required to deal with crime, but had to answer many enquiries by the public and the media, to regulate the traffic, and ensure access for rescue teams.

Yet it was obvious to everyone that their own lives would be seriously disrupted, though at this stage the depth of disturbance was not really appreciated. They were powerless and bewildered, there was no way of working off their anxieties as in comforting others, in manual labour, in rescue operations or in clearing up. Moreover the 1967 bush fire disaster was still in peoples' minds, and the new crisis triggered off emotionally charged recollections of their past experiences (Wettenhall, 1975).

The ferry queues, tedious as they were, gave some catharsis and strangers had a common levelling field. They all wanted to talk about the same subject, to put their fears into perspective and to project their difficulties onto a series of scapegoats, from the captain of the ship to alleged bureaucratic bungling; and to discuss in retrospect the official mistakes in connection with the original building of the bridge and what they had predicted at the time, whether in reality or as a modification of their recollections.

PART THREE
THE RESEARCH AND THE FINDINGS

The research and the findings

Organisation of the research

An opportunity was suddenly provided to examine the effects of partial isolation, difficulties in communication, crime, economic stringency, family disruption and deprivation of amenities on a population of one side of the river as compared to that on the opposite shore. There was an obvious need to start this research immediately as the sooner the effects could be ascertained the more directly could they be described.

It was supposed that within six months people would have made their short-term adjustments, there would have been a redistribution of the essential services and communications would have been improved; therefore it was decided to examine the effects of the crisis from 5 January 1975 until 30 June 1975 on a monthly basis. A second scale was also constructed which recorded important or significant events so that their timing might be compared with the experimental findings.

The next task was to find items for which, if possible, figures were available for the corresponding months of 1974 and 1975 for both the eastern and the western shores.

The police and the Community Health Services have been working closely together in Tasmania and especially in two other research projects, the one on 'Road Offences in the Intellectually Handicapped' (Boyce and Dax, 1973, 1974 and 1975) and the other on 'Multiproblem Families' (Davies and Dax, 1974). The joint interests in criminal and social problems made it possible to use police records as a most useful guide to the measurement of the effects of the crisis, especially when taken in conjunction with the social changes.

Additionally it was a rare opportunity to examine the ways in which criminal behaviour might be adjusted to new circumstances. There was also the chance to see whether it was modified in quantity, variety, place and time.

It was also important to know which facets of the social adjustment of the community concerned were reflected in the police records. Other useful figures could be obtained from, for instance, petrol sales, alcohol sold, debts incurred, shoplifting, shop sales and building undertakings; but they were still of some quantitative importance.

A Research Committee was convened on 23 January 1975 on which the police, housing, mental health, probation, education and social welfare departments and the Australian Bureau of Statistics were represented.

It was decided that each group would give a descriptive monthly account of the changes within the department during this period and that the reports would be continued until the end of June. These descriptions gave qualitative assessments of the progress, which were strengthened by such figures as were available.

One of the greatest difficulties with this approach was that none of these departments, the police excepted, had previously had offices on the eastern shore; therefore whatever they had done there since the bridge accident was the sum of the demands which would previously have been made upon them in Hobart and the new requests which might have been due to the crisis itself.

The Committee also had the advice and cooperation of the Australian Departments of Labor and Immigration and Social Security and various representatives and individuals from other departments as needed. Each month a number of industrial and voluntary associations were contacted, thereby reflecting by as wide a coverage as possible the changes which had taken place since the collapse of the bridge.

Criminal patterns and offences

The Tasmania Police recorded statistically the numbers and characteristics of offences reported and offenders dealt with. Statistics of actual convictions were not sought as the considerable delay between a criminal act and the sentencing of the offender render them unsuitable for this research.

Crime figures for 1974 and 1975 were compared, in search of significant changes which might be attributable to the loss of the bridge.

Where a statistical comparison of crime in two consecutive years is being made, a regression analysis should be conducted in order to estimate the random fluctuation between years before making conclusions about the significance of apparent changes. It was not possible to do so in this case, however, due to the lack of statistics with such a specific base for previous years.

Figures were collected for the first six months following the bridge accident, (that is January to June 1975 inclusive) and compared with the corresponding period of 1974. It is noted that since the bridge was hit on 5 January 1975, the figures for January 1975 include the five days prior to the accident.

Greater Hobart is divided into three areas corresponding with the Bellerive, Hobart and Glenorchy police divisions. Hobart and Glenorchy cover the cities on the western side of the river and some other small areas; and Bellerive the eastern shore including the Clarence Municipality and several other outlying districts.

A classification of offences was devised by amalgamating the existing police index of crimes and offences into fewer categories.

Crime data was collected in the following areas:

- (a) official police statistics of reported crime;

- (b) data from the Charge Books regarding offenders arrested during the study period for offences committed during the study period;
- (c) domestic and neighbourhood disputes referred to police.

The source and patterns of each will be discussed in turn.

There are many reasons why crime statistics at face value are not a good social indicator. For example, they may reflect changes in legislation, or police activity, rather than in real crime; while they only cover incidents which are officially recognised as crime and of these only those which come to notice.

The figures have been affected by operational and administrative changes independent of the bridge accident such as the establishment of a task force of five uniformed police officers without fixed duties patrolling the city on foot and in marked cars during the night. It began its operations in August 1974, but after the bridge accident it gave considerable attention to conduct relating to the ferries, sometimes travelling on them at hotel closing time on the request of the captains.

Another change in the location of personnel in response to the after effects of the bridge accident was the removal of three of the nine men operating the breathalyser from the western to the eastern shore. In consequence a 24 hour roster was no longer possible on either side.

There were also some considerable changes in the numbers of police allocated to the various areas according to local needs. A new batch of training school cadets was qualified in February 1975 and this added to the numbers of police available. During the six months the uniformed male police in Hobart increased from 169 to 173 (161 in 1974); and in Bellerive from 55 to 60 (40 in 1974). The Criminal Investigation Branch numbers remained the same.

During the same time there were some general policy changes which brought the public and police more closely together.

*Reported offences recorded in the Hobart,
Glenorchy and Bellerive Police Divisions*

Reported offences are shown monthly for the first six months of 1974 and the corresponding period in 1975 (see Tables 7 and 8). There may be a time lag of several days in reporting an offence so that one month's figures may include a small overlap from the preceding month.

For brevity the recorded crimes are classified as: all offences against the person; total offences against property (including general stealing, burglary, damage to property and arson, and motor vehicle stealing).

TABLE 7 Reported offences against the person by area

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Hobart (western shore)							
1974	28	23	23	41	23	30	168
1975	33	28	26	42	29	45	203
Glenorchy (western shore)							
1974	12	11	16	14	15	13	81
1975	12	13	10	13	16	17	81
Bellerive (eastern shore)							
1974	8	7	5	4	9	15	48
1975	12	13	11	10	13	20	79

It will be of interest from Table 7 that the offences against the person in Hobart (western shore) increased in 1975, though by a small amount in January to May and to a larger degree in June. In Glenorchy (western shore) there was no change in 1975 from 1974, but in Bellerive (eastern shore) the increase in 1975 was considerable and on a consistent level throughout the whole six months studied.

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These figures have to be considered in conjunction with the alcohol consumption as well as the interruption in mobility between the eastern and western shores.

It would be of interest to know how many of the offences in Bellerive were domestic and due to tensions caused by the bridge accident, but no comparable figures are available to warrant their analysis.

TABLE 8 Reported offences against property by area

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Hobart							
1974	323	341	248	297	345	347	1,901
1975	412	287	256	320	271	267	1,813
Glenorchy							
1974	123	143	144	137	181	190	918
1975	150	98	143	118	113	106	728
Bellerive							
1974	87	106	106	91	76	116	582
1975	79	67	97	61	122	99	525

Tables 8 and 9 show the build up of reported offences against property in Glenorchy over 1974 and their sudden and continued reduction in 1975. After reaching a high level in January 1975, the Hobart figures remained about the same as in 1974, though in 1975 the second quarter figure was lower than the first.

The Bellerive figures dropped noticeably in the first quarter of 1975 (which immediately followed the accident) compared to both the first and second quarters in 1974 and the second quarter of 1975. The increase in the last two months may have had some relationship to the opening of the riverside road and the disposal of stolen property.

TABLE 9 Property offences by quarter

	<i>January-March</i>	<i>April-June</i>
Hobart		
1974	912	989
1975	955	858
Glenorchy		
1974	410	508
1975	391	337
Bellerive		
1974	299	283
1975	243	282

As a special case motor vehicle stealing is worth considering separately (see Table 10).

TABLE 10 Motor vehicle stealing by area

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Hobart							
1974	35	36	21	29	31	42	194
1975	65	25	30	27	25	30	202
Glenorchy							
1974	8	10	12	14	15	18	77
1975	18	13	8	9	6	11	65
Bellerive							
1974	9	7	3	4	7	7	37
1975	8	3	8	8	14	13	54

There is little change from 1974 in Glenorchy or Hobart but the increase in car stealing in Bellerive especially in the later two months in 1975 is of interest, as it occurred after the riverside road had opened.

All the above figures for property offences need to be reviewed against the improved transport and connections to and from the eastern shore in the second quarter of 1975.

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Charge Book figures

Charge Book figures comprise unlawful incidents for which offenders were identified, taken into custody and charged.

In order to examine the ways in which criminal behaviour might have been adjusted to the new circumstances after the bridge accident it was necessary to collect data linking information about offenders, their place of residence, the details of their offences and the place where the crimes were committed.

The only convenient police records linking the required data were the Charge Books held in the Charge Rooms of the Bellerive, Hobart and Glenorchy Police Stations. Two lines of inquiry were followed through this data:

- (i) The numbers and types of crimes committed by offenders according to age and sex were recorded.
- (ii) A matrix was developed showing the relationship between where an offender resided and where the offence was committed (see Table 14).

The Charge Book is kept as a record of persons who have been arrested and what they were charged with, and is not organised for statistical use, since the people are not included who, instead of being brought into the Charge Room, are proceeded against by summons. Nor is any comparable record of the summonses issued available. The Charge Book therefore represents only a partial record of offenders. A further complication arises from a person being charged at one time with a number of offences. When this has happened only the main offence has been recorded except when there were different types of offences then each type was counted.

Increase in staff and self-sufficiency of the Bellerive Police District may have contributed to increased charges for drinking-driving and the 'police generated offences', which mostly involve the simultaneous detection of an offence and police action

against the offender.

Before 22 May 1974 drink-drivers were summonsed and thus not recorded in the Charge Book. After that date drink-driving became an arrestable offence. The figures in Table 11 have been supplemented from the records of the Breath Analysis Section to include all drink-driving offences dealt with during the study period.

TABLE 11 Illegal incidents in which offenders were arrested and charged by area

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Hobart							
1974	254	222	227	226	219	263	1,411
1975	247	134	249	231	272	205	1,338
Glenorchy							
1974	62	83	118	118	100	84	565
1975	72	68	51	76	94	54	415
Bellerive							
1974	43	44	52	58	36	60	293
1975	54	68	75	88	55	72	412

It will be seen that for the first six months in 1975 there was a 5 per cent decrease in Hobart on the corresponding 1974 figures, for Glenorchy a drop of 27 per cent and for Bellerive an increase of 41 per cent.

A detailed analysis of illegal incidents in which offenders were arrested and charged shows two categories which seem to be worth mentioning separately as having a bearing on the changes following upon the bridge collision. The first concerns the offences against good order (see Table 12), the second drink-driving (see Table 13).

These figures reflect the same trends as in the total illegal incidents (see Table 11) but proportionately are considerably higher.

TABLE 12 Offences against good order by area

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
Hobart							
1974	112	73	61	54	78	79	457
1975	136	66	105	101	101	89	598
Glenorchy							
1974	29	37	53	42	40	35	236
1975	14	25	13	25	23	11	111
Bellerive							
1974	8	7	18	13	7	7	60
1975	17	21	22	33	22	19	134

It is unfortunate that more reliable statistics cannot be given, as although the Hobart and Bellerive figures for the offences against good order bear a proportionate relationship to the drink-driving offences, the Glenorchy figures are widely different and show an unexplained reversal of trends, largely due to the very low offences against good order in the first six months of 1975.

TABLE 13 Comparison of charges by area January to June

	<i>Against Good Order</i>	<i>Drink-Driving</i>
Hobart		
1974	457	436
1975	598	415
Glenorchy		
1974	236	118
1975	111	145
Bellerive		
1974	60	129
1975	134	167

The total drink-driving offences in the three police areas increased from 683 in 1974 to 727 in 1975. There may be many reasons for this, the most important being a challenge to the

accuracy of the breathalyser by a parliamentary committee which took a considerable time to resolve, and the other being the increased police activity towards reducing drink-driving.

The matrix (see Table 14) compares the place of residence of those charged and the place where the crimes were committed. From the point of view of the changes in the location of crime following the bridge collapse these figures are of special interest. The residents of 'other places' include those with no fixed abode.

TABLE 14 Charge Book Matrix — Totals

<i>Offender Resident In</i>	<i>Offence Committed At</i>			
	<i>Hobart</i>	<i>Glenorchy</i>	<i>Bellerive</i>	<i>Other</i>
1974 Hobart	565	86	46	10
1975	596	60	17	7
1974 Glenorchy	261	373	25	8
1975	277	296	7	6
1974 Bellerive	214	39	276	6
1975	162	19	357	1
1974 Other	227	71	14	32
1975	218	55	44	37

The changes are particularly well shown diagrammatically, (see Diagrams 1 to 4). The fall in charges against residents of Glenorchy, in Glenorchy and Bellerive, suggests that those resident in Glenorchy previously committing crimes in these districts may now have transferred their activities to Hobart. The Bellerive residents have been charged with considerably more offences committed in Bellerive, presumably because of their limited mobility. Lastly those resident outside the Greater Hobart Area or of no fixed abode were charged with a considerably increased number of crimes in Bellerive, but this has not been explained.

DIAGRAM 1 Resident in Hobart – place where crime committed (as recorded in Charge Books)

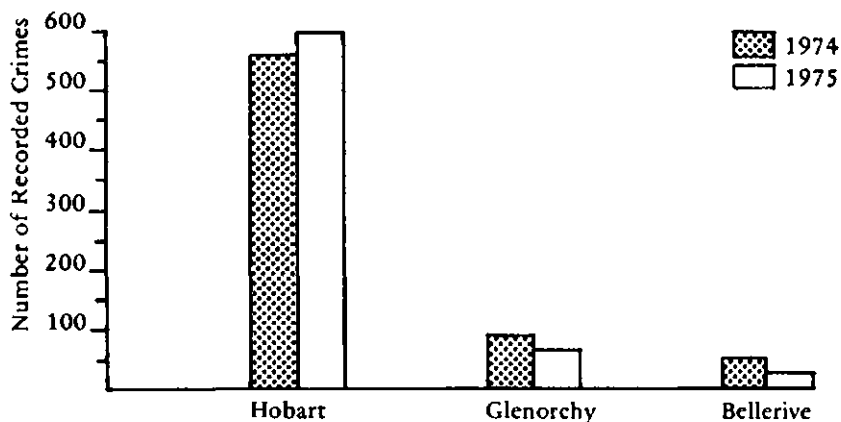


DIAGRAM 2 Resident in Glenorchy – place where crime committed (as recorded in Charge Books)

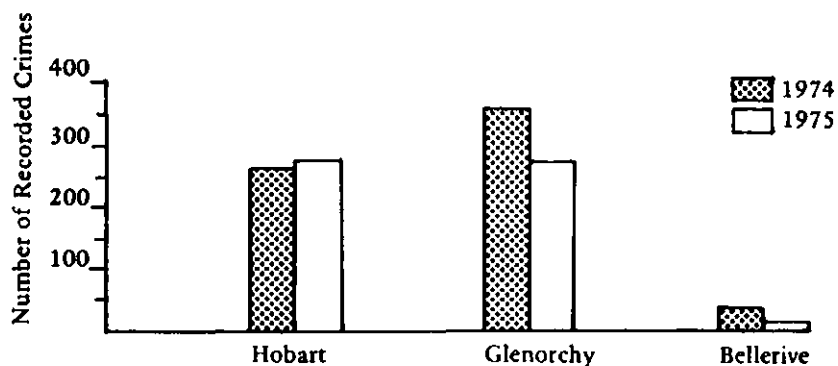


DIAGRAM 3 Resident in Bellerive – place where crime committed (as recorded in Charge Books)

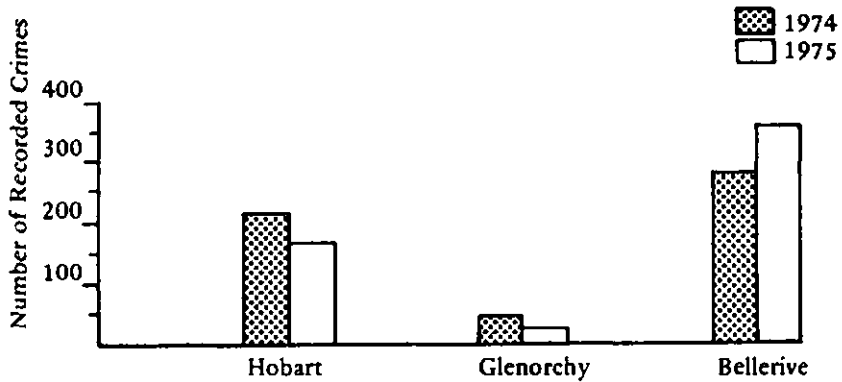
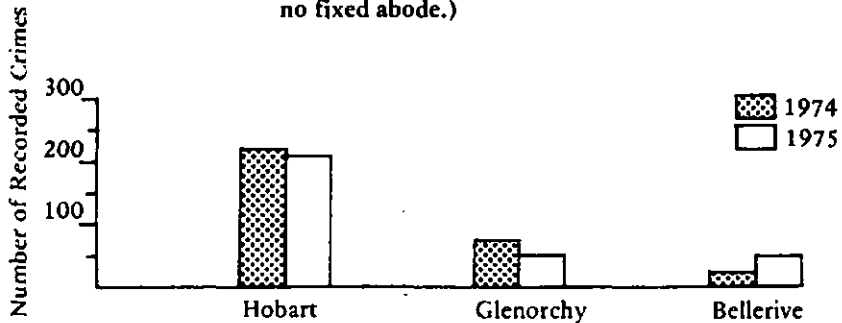


DIAGRAM 4 Resident outside Hobart – place where crime committed (as recorded in Charge Books. Includes no fixed abode.)



Domestic and neighbourhood disputes

The number of complaints for (i) domestic and (ii) neighbourhood and noise disputes combined were only obtained for Bellerive. This necessitated going through the 'Crime and Occurrence Book' in the Charge Room for the whole of the study period in 1974 and in 1975. The definitions of these disputes are as follows:

- (i) Domestic dispute refers to a dispute between parties residing in the same dwelling (for example spouse, de facto partners, parents and children, other relatives or permanent boarders). Police action usually amounts to advice being given but no official report made.
- (ii) Neighbourhood dispute refers to a dispute between families or individuals living in close proximity (usually in the same part of the street). Noise complaints usually refer to parties, mini bikes or machinery in the complainant's immediate neighbourhood.

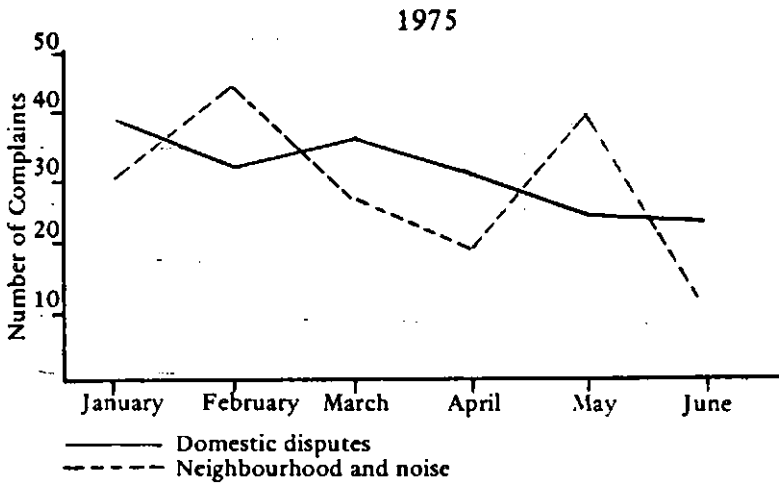
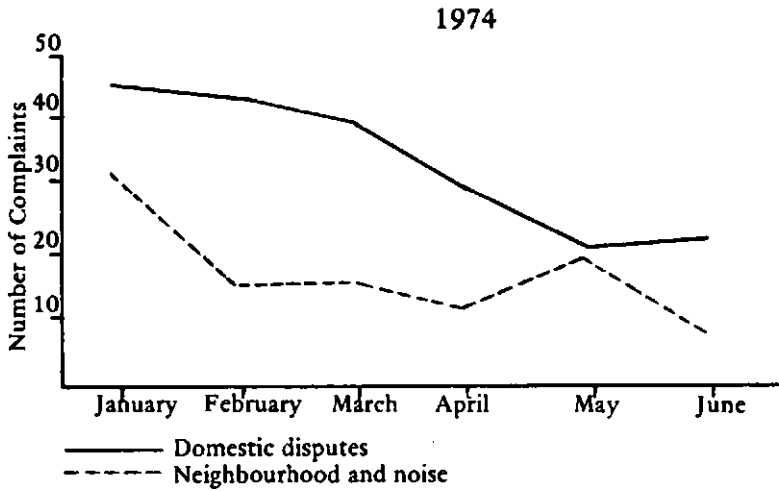
The results are best shown graphically (see Diagram 5).

The general trends are of considerable interest. At the beginning of 1975, figures for both domestic and neighbourhood disputes were much the same as at the beginning of 1974. In the succeeding weeks of 1975 the domestic disputes fell by about 20 per cent but the neighbourhood and noise complaints rose to over 300 per cent of the 1974 figures. Except for an unexplained increase in neighbourhood complaints in May, they have gradually settled down to be very little higher than in 1974. On the other hand the domestic disputes in the first three months of 1975 were lower than the corresponding 1974 figures, but in the last three months they gradually increased to a higher level.

Shoplifting

Although we were in contact with four major stores only one has had figures and details which are of value for this survey. However, one other was sufficiently disturbed by the increase in

DIAGRAM 5 Bellerive area: Crime and Occurrence Book



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shoplifting on the eastern shore and the corresponding fall on the western shore to transfer over a security officer. This occurred within the first month after the bridge accident while the children were still on school holidays. No other figures for the eastern shore shoplifting are available. The figures from the large western shore store are shown in Table 15.

TABLE 15 Shoplifting charges January to June

	<i>Western Shore Residents</i>	<i>Eastern Shore Residents</i>
1974	92	56
1975	85	33

Other than the considerable drop in the number of shoplifters living on the eastern shore, there is nothing significant in the quarterly or monthly figures. Shoplifting in Hobart by eastern shore residents is not as yet on the increase despite better transport.

Road conduct

Traffic routes

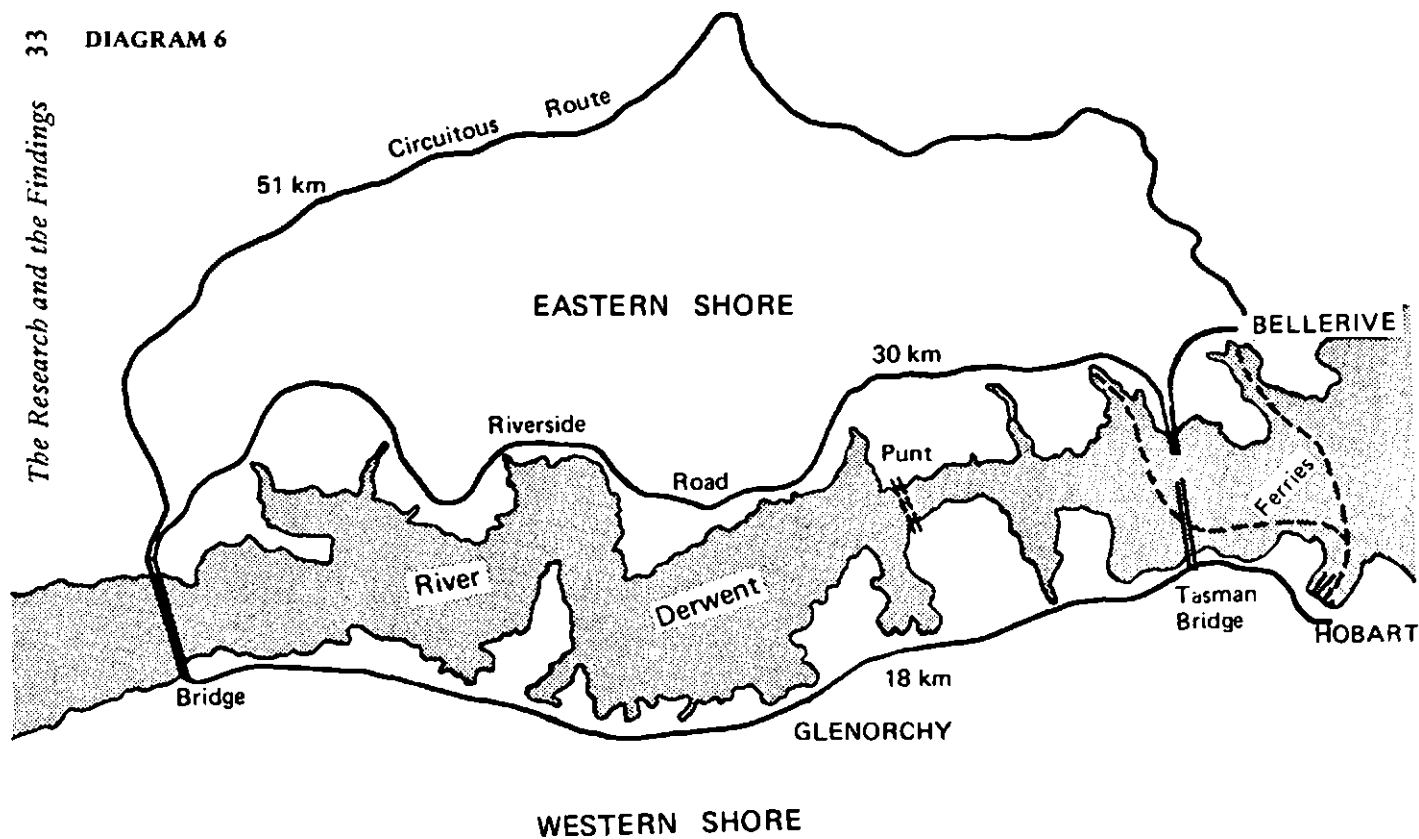
The traffic routes up to the end of June are shown diagrammatically in Diagram 6. The figures represent kilometres.

Traffic flow

The road flow east-west and west-east in April was 10,793 persons. No count is available for the end of June but the drop in ferry passengers suggests the road flow may have increased by up to 2,000 persons by this time.

Accidents and deaths

Since the bridge collapse there has been less traffic in Hobart but more in Richmond, Brighton and Glenorchy. There was a reduction in the number of accidents and injuries in the first



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quarter in both Clarence and Hobart, but in the second quarter there was a general rise to above the level for 1973 and 1974. In total the figures are lower in both Hobart and Clarence than in 1974, but considerably higher in Glenorchy. This might be expected from the increase in Glenorchy traffic. In both Richmond and Brighton there is an increase in the figures. Details of the totals for the five municipalities concerned (Clarence, Richmond, Brighton, Glenorchy and Hobart) are shown in Table 16.

TABLE 16 Traffic accidents, deaths and injuries

<i>Six Months Ending</i>	<i>Accidents</i>	<i>Killed</i>	<i>Injured</i>
June 1973	272	18	359
1974	287	15	377
Two-year average	279.5	16.5	368
1975	304	23	389
1975 variation from average of preceding two years			
	+8.8	+39.4	+5.7

Noise complaints

A proportion of noise complaints may be associated with motor cycles, and cars with deficient mufflers. The figures seem worth quoting if only for the difference in Bellerive (see Table 17).

TABLE 17 Noise complaints January to June

	<i>Bellerive</i>	<i>Hobart</i>	<i>Glenorchy</i>
1974	12	78	48
1975	43	83	38

Traffic offences

Table 18 shows a decrease in traffic offences of 6 per cent in Bellerive and 7 per cent in Hobart and an increase of less than

1 per cent in Glenorchy. The differences are not great: the point of interest is that traffic offences have not differed more with the alterations in traffic density. However the road is narrow in many places, and to pull up a motorist would seriously interfere with the traffic flow. Therefore the appearance of the police may have been used as an alternative restraining influence.

TABLE 18 Traffic offences January to June

	<i>Bellerive</i>	<i>Hobart</i>	<i>Glenorchy</i>
1974	1,354	2,748	1,346
1975	1,448	2,550	1,353

Drink-driving

The increase in drink-driving offences during the first six months of 1975 is discussed in relation to Table 13.

The remarkable drop in offences against good order in Glenorchy seems at variance with the increase in drink-driving. It might be suggested that the offences against good order which tend to have a close relationship to alcohol consumption may have been committed in Hobart by the Glenorchy residents who were then apprehended for drink-driving offences on their way home.

However, the majority of the drink-driving charges are said to be preferred between the hours of 11 p.m. and 3 a.m. Many of these are against middle-aged people returning from the Wrest Point casino. The age pattern has not changed noticeably since the bridge accident; therefore these figures are unlikely to be associated with the increase in offences against good order, as these tend to be committed by younger people.

The use of cars

The total road picture is not easy to dissect. After some initial reduction in petrol sales, most marked on the western shore, there was a pick up above the 1974 figures. Cars which were

unable to be used by the men to go to work were taken for shopping by the wives, and then used for longer drives at the weekends. Youngsters who once went over the bridge in the evenings and 'burned' round Hobart ceased to do so; they seemed to have no comparable outlet for display in Bellerive.

There was more alcohol consumption, especially on the ferries and the eastern shore, and the offences for drink-driving increased, as did the offences against the person, but especially in the Bellerive police district. The injuries and deaths on the roads also increased.

However these figures have to be taken in conjunction with the appointment of a police task force, the greater strength of the Bellerive police force, their activity at the ferry terminals and taverns, and the increase in charges especially in Bellerive.

But for the activity of the police the accidents and deaths might have increased to a much higher level.

Essential services, associations and amenities

The Citizens' Advice Bureau

The Citizens' Advice Bureau, a voluntary association, located in the Clarence Municipal Offices, played an important part in the months following the accident to the bridge. It received publicity through the radio stations and the press, the Eastern Shore Liaison Committee and the Municipal Council. It collected enquiries and referred them to the appropriate agencies, while it also became a sounding board for the needs of the community.

TABLE 19 Enquiries made to Citizens' Advice Bureau

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>Total</i>
1974	111	78	189
1975	325	313	638

In this light the comparative quarterly figures for enquiries for 1974 and 1975 are of interest (see Table 19).

From the point of view of this study the subclassification of the numbers of enquiries for the first six months of 1975 is of much interest (see Table 20).

TABLE 20 Enquiries made to Citizens' Advice Bureau
January to June 1975

	<i>Transport</i>	<i>Health</i>	<i>Amenities and Recreation</i>	<i>Employment Education</i>	<i>Personal and Family</i>	<i>Other</i>
January	10	15	7	16	21	
February	16	23	8	26	18	
March	14	14	7	20	25	
April	7	5	19	21	21	
May	13	13	18	32	24	
June	8	7	19	14	22	
1st quarter	40	52	22	62	64	85
2nd quarter	28	25	56	67	67	71

The switch-over in the characteristics of the requests between the first and second quarters is of interest. The initial needs for communications and medical services were replaced in priority by enquiries about clubs, organisations and recreations as if people were then looking for group support and contacts.

These findings were largely confirmed by the use made of the various statutory departmental offices, the considerable correspondence in the press, and the demands to the authorities and their representatives.

Transport

Once the bridge link by road was destroyed, the alternative was a drive to the city of about 70 kilometres over country roads and across the bridge on the Midland Highway from Hobart to Launceston, which spans the Derwent River some 20 kilometres above Hobart. This route had also to be used by all the traffic to

the airport and by heavy vehicles such as timber and concrete trucks, petrol tankers and semi-trailers (see Diagram 6).

Urgent work began on upgrading another narrow scenic river-side road. This was opened to two-way traffic in the early part of May, so cutting the journey to less than 50 kilometres along a better roadway.

The main transport has been by ferry. There are two bays in which small landing stages existed, one 2,500 metres downstream from the bridge and the other 2,000 metres upstream. A further 5,000 metres upstream a vehicular punt connected the east bank with the Electrolytic Zinc Works, to which the *Lake Illawarra* was travelling when it hit the bridge.

The day after the accident three private ferries and a government open vessel were operating from the anchorage below the bridge. A fortnight later a private ferry started a service to Hobart from the bay above the bridge, and a month later it was joined there by another. A larger government ferry had arrived from Sydney at the beginning of February, and a further vessel of comparable size at the end of May.

By the beginning of March the ferry terminals were improved, some shelters were put up, and an information booth was opened. In April the first ferry timetable was produced, and by conversion of a store on the docks, a new terminal was opened in Hobart where waiting passengers could sit in comparative comfort.

By this time there was a 15 minute service at peak hours which was lengthened to an hourly service at less popular periods. An all-night service ran from the downstream eastern terminal. Thus by May, the transport, though limited, was reasonable.

On 9 April the following figures of the daily movement of persons (both east-west and west-east) were recorded:

Bellerive (downstream) ferry	23,496
Lindisfarne (upstream) ferry	3,886
Risdon punt	4,677
Road links (car)	10,793
	<u>42,852</u>

On 25 June 1975, 25,581 persons crossed the river by ferry compared with 27,382 on 9 April 1975. Thus by June it appears that a number who were previously using the ferry were driving to Hobart on the improved road.

There is little doubt that the transport services occupied the place of greatest importance in all matters needing attention; and that the emotional disturbances due to dissatisfaction, anger, uncertainty and inconvenience occasioned by the collapse were mainly projected onto the Transport Commission and its staff from the Minister downwards.

The transport services were an obvious target for criticism as they were needed immediately by everyone, and were initially almost non-existent.

Lastly the inadequate information and delay in assurances about the repair, the replacement, an additional crossing and the uncertainty surrounding the bridge itself were all subjects of discontent as they reflected the insecurity of the whole population.

The other less tangible but disturbing matters were associated with the health services.

The health services

It has been shown that following disasters hospital services are more widely used and that psychosomatic complaints are more frequent; but above all that if adequate medical services are available they allay fears and uncertainty and provide security in the event of possible need. In this case there were no hospital services nor any hospital specialists on the eastern shore; and

with few exceptions, no paramedical staff, rehabilitation facilities, ambulance services, dentists or undertakers.

Many of the people had their general practitioners in Hobart and found problems in changing because the existing eastern shore general practitioners were already overloaded. This also made for difficulties in home visits and emergency calls, and resentment against the doctors who sometimes became defensive in reply. Elderly persons, pregnant women and mothers with young children were in special trouble.

Part of an old peoples home was converted to an emergency centre, a helicopter and a launch covered the first two week's emergencies, then an ambulance took the cases across the river in one of two converted landing craft. Early in March the Health Department opened a centre to replace the emergency accommodation.

Rehabilitation cases and handicapped persons had also to be carried and the Red Cross were able to arrange transport on the Army craft by the beginning of February. By the third week in April the Red Cross had carried 700 patients, and an ambulance bus had been provided for the purpose instead of private cars.

There was considerable agitation to supply a hospital, though against the advice of the Health Department. It is not clear that this could or would be able to provide the necessary emergency services, but perhaps irrationally it would have given some of the reassurance which was needed when no in-patient care was available, while it would have been a valuable asset to pregnant women.

After the first three to four months many of the essential services had, in some measure, been provided and the population now began to turn to the need for clubs, recreations and amenities.

Clubs, recreations and amenities

The cultural activities were very largely on the western shore, the theatre, the halls, the museum and gallery, the cinemas (except for one drive-in) the restaurants (other than those in the hotels), the meeting places, the lecture theatres and the botanical gardens.

On the other hand, the two libraries on the eastern shore were well supplied and since the bridge accident have considerably increased their activities. The number of readers immediately rose in January, largely because of their transfer from the Hobart City to the Clarence libraries, but unexpectedly there was a sustained increase in those joining until May; since then the numbers have been decreasing slowly. The 30 per cent net gain in 1975 was about 75 per cent above the predicted figure. This may be in keeping with Hawkes' (1975) finding that some who would be attending lectures and educational activities on the western shore no longer did so, but read instead. Also with the restricted social life, a greater number remained at home.

The Adult Education Board has been in demand and has stepped up its programs which have been satisfactorily filled and have produced a new and lasting amenity; on the other hand the Film Society showings have been poorly patronised.

Two of the three major golf courses and a public course are on the eastern shore as well as the main surfing beaches. The attendances have dropped, but not to as low a level as had been expected.

The distribution of the tourist activities is somewhat confused. The airport is on the eastern shore and the bus leaves Hobart two hours before the flight time, though it is quicker to go to the ferry, then to take a taxi at the other end. It is not yet known what will be the longer term effects on the tourist sites such as Richmond and Port Arthur, or even on the eastern side motels, which did badly for a while; however those with a licence, or attached to the hotels, have been more successful lately.

Nothing very positive has come from the enquiries about the church activities, with the exception of a multi-denominational service, using one of the schools, which has been well attended by young families. An interesting comment was that the crisis has helped the reorganisation of the churches towards becoming more involved in community development, though in one of the larger churches the attendance has dropped appreciably. Also it was suggested that the older members tended to go to the western shore churches, and a new program has to be evolved for the younger people on the eastern shore. It was not expected that the effects would show until after the study period had expired.

Housing

The two departments most involved with changes following the accident were Housing, and the Australian Department of Labor and Immigration. Employment is considered in the next section, together with economic and industrial change.

The State Housing Department has 4,907 houses on the western shore and 3,290 on the eastern. A housing office was opened in the first week and the comparable figures for the tenants' calls for help are of interest (see Table 21).

TABLE 21 **Calls for housing assistance**
January to June 1975

	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
West	189	261	197	307	296	342	1,592
East	300	379	309	419	409	383	2,199

The greatest number of problems came from a new housing area which had not settled down prior to the accident, and where there was isolation, poor transport and inadequate neighbourhood support. There have, however, been no more applications for transfer to western shore accommodation from the eastern shore than there were in 1974, nor have there been more neighbourhood disputes, as they concern housing, reported to the Department.

Amongst the people owning their own homes, mostly not from the Housing Department, there has been some serious concern as to whether they would lose money on moving. In an interesting illustrated report devised by Hawkes (1975) on the basis of questions to females living on the eastern shore, no less than one in every eight of the house owners in two of the higher socio-economic class suburbs had been to estate agents with regard to sale of their houses. Nevertheless she found a much higher loyalty to the eastern shore than expected.

A number of people have had to sell their homes, usually having to pay a higher purchase price, to move over to the western shore for convenience in their jobs, especially if both husband and wife were workers; others have moved because of their childrens' schooling, or their community obligations.

Economy, industry and employment

In Hawkes' (1975) survey 5 per cent of the sample of women had resigned their jobs because of the difficulties following the bridge collapse, the commonest reason being that the long travelling time made the jobs non-viable. These were mostly women on part-time work. Full-time working women with families were amongst the hardest hit of all the Clarence residents.

TABLE 22 Clarence building approvals as percentage of Hobart division approvals

	1974	1975
	(per cent)	(per cent)
January	19.2	10.6
February	24.5	7.1
March	29.2	15.3
April	29.3	13.4
May	32.0	15.3
June	34.4	23.4

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There is little doubt that the eastern shore population is financially worse off if only for the added costs of travelling and the potential working hours wasted. An appreciable number have given up part-time jobs and others have grown apathetic and disinclined to work.

The Clarence building approvals compared to those of Hobart showed a depressing decline in the first six months of 1975 (see Table 22).

The value of the building approvals for the first six months of 1975 are compared with those for the same period of 1974 in Table 23.

TABLE 23 Building approvals January to June

	<i>Clarence</i>	<i>Hobart</i>	
	(\$'000)	(\$'000)	per cent
1974	6,202	21,625	28.7
1975	3,910	29,334	13.3

Another group severely hit were the transport workers. A number had invested in time-payment purchase of trucks partly for the wood chip industry and partly for cartage to and from Hobart. In many cases the payments could not be met and several truck owners went bankrupt.

A number of small shops beside the ferry terminals were highly successful due to the congregation of people there, others lost heavily, especially with the higher wages, changed shopping habits and less shopping hours.

Over the first few weeks there was little use of motor cars, then the wives started using them by day and the husbands at weekends. Friday night shopping dropped off for the first three months, then gradually built up again. It was generally supposed the husbands were too tired or too late home to go out with their wives on Friday. Since the wives had the use of the cars, and

some had given up their employment, they tended to do their shopping in the day time earlier in the week.

There has been little evidence that eastern shore residents were facing extra costs because of the greater distances the goods had to be carried, but in many cases the purveyors complained of having to absorb the costs.

However there have been higher wages than before and people have tended to pay cash instead of using time-payment. There have had to be rearrangements in the contract work, the deliveries and the use of staff, but on the whole the sales of the western shore large firms have not decreased in spite of the accident.

Even the petrol sales have increased and women have tended to go to the western shore on at least one day a week for shopping. The distribution of sales amongst the various garages has reflected the use of the transport routes, the holiday activities and changes in the use of the family motor car.

It is of some interest that the evaluation of sales will in certain instances have more future social meaning as the result of the enquiries.

As against the inconveniences, the eastern shore residents were able to use the local branches of insurance companies, banks, building societies, furniture stores and other services started during 1975 which they had previously lacked on that side. No doubt this produced an overall increase in revenue.

One of the problems was to find suitable accommodation for these offices near to the shopping centres, and the values of premises in these limited areas consequently increased.

Two indirect indications of financial difficulties were shown by the greater difficulties experienced first by a debt collection agency in obtaining payment, and secondly the increase in arrears in housing department rentals in the latter months.

Unfortunately the figures collected by the welfare officers can only be a guide, because they were available for the limited period of four months. Moreover they only represented a part of the total arrears for the period; nevertheless the trend is worth watching (see Table 24).

TABLE 24 Recorded cases of arrears in rent, Housing Department houses, March to June 1975

	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>Houses in Area</i>
East	18	39	46	24	3,290
West	52	47	32	17	4,907

Alcohol sales have gone up by about twice as much on the eastern shore showing an increase of 15 per cent on the 1974 figures compared with 5 per cent in the west. There has been some redistribution of the use of the hotels and this was especially noticeable at those along the longer road journey, which were well patronised before the shorter road along the river was widened. Again, a hotel beside a ferry terminal was heavily patronised and then fell off to some degree when the new landing stage was built. Two taverns have considerably increased their sales with a collection of young people using them.

There has been a significant increase in bulk beer sales by hotels on the eastern shore. It has been suggested that mixed social drinking has increased as an alternative to 'going to town' in Hobart.

The combined drinking trade of the ferry services represents the equivalent of one of the largest hotels 'placed in the middle of the Derwent'. This necessitated a redistribution of the police as well as affecting the economic climate and social and family life.

The immediate consequence of the bridge crisis on employment was the extra travelling time taken, which in the week's total amounted to about another whole day's work. This meant

that many people could no longer do overtime or shift work and in some cases these had to be refused and difficulties arose while extra part-time work was no longer possible. Many women with part-time jobs could no longer get back to their children after school, or in times of emergency or sickness, or to do their household shopping. Therefore they had to give up their employment, since very little part-time work was available on the eastern shore. Opportunities for men to transfer there are also very limited because of the lack of large scale industries and business and the drop of work in the building trades.

PART FOUR
SPECIAL APPLICATIONS
OF THE OBSERVATIONS

Special applications of the observations

Childbirth and children

Pregnant women felt very insecure with no obstetrician, no hospital beds and delay in ambulance services. It has been convenient in many cases to have an induction of labour at a suitable chosen time. This has been the recent practice in about half the eastern shore pregnancies.

Mothers were also disturbed by the insufficient emergency services for their children; however since a paediatrician was the only specialist available they were less badly off in this way, except when in-patient care was required. There were also complaints that if a child, or any member of a family, had to be visited in hospital this was a matter of difficulty as it completely disrupted the routine and often meant leaving the other children alone at home or with neighbours.

The bridge collapse occurred fairly early in the long school vacation, and so, many children were away on holiday. In February a new school year commenced in which, as always, there were many changes of school, class and teachers, therefore very little unusual disruption occurred. Four hundred teachers were at the time living on the opposite shore to their schools and they were invited to apply for transfer; 138 requests were received and 91 transfers arranged.

The accident coincided with a number of changes in educational planning, but their development in this semi-isolated community is nevertheless of interest. They may have had a real effect on curtailing the expected delinquency. For instance, plans were made to supervise the 470 'latchkey' children; sporting and cultural activities were offered in several centres after school and during the holidays, and in one part of Clarence alone about 160

children participated.

Again although all the private schools are on the western shore and the additional travelling meant longer hours, the youngsters took this very well and on the whole made less trouble on the ferries than some had expected. Truancy, perhaps the most sensitive indicator of disturbance, was nowhere markedly increased.

Adolescents

The effects of the bridge collapse on the post-school group and young adults is very difficult to measure with accuracy.

It was very noticeable in the first six months that Hobart was quieter than before the accident, with fewer 'hotted up' cars and noisy youths. Attendance at night clubs fell and police patrols reported practically no call on their services within the city. In fact there was a lull everywhere. Gradually the disturbances on the ferries increased, there were incidents at the ferry terminals and later at the hotels and taverns, the large proportion of which were related to the 16 to 21 age group. The increased police vigilance on the eastern shore to curb these youths was associated with more police patrols of the ferry terminals, car parks and taverns.

As has already been shown, the number of persons charged in the Bellerive police district rose by more than 40 per cent; many of them were from the 16 to 21 age group and were charged with offences associated with alcohol. Additionally the brewery records show a considerable increase in eastern shore drinking as well as on the ferries, though the proportion of young people involved is not known.

At one stage a number of cars were taken by parties of youths and girls to hotels in outlying towns, as if it were a substitute for Hobart, but this tended to drop off and instead to be transferred to certain hotels and two taverns in the Clarence area.

Although some gangs of youths formed, the vandalism in houses, petrol stations or on public buildings has been less than was feared.

Short of a concentrated and extensive survey, it is extremely difficult to know what proportion of adolescents were involved in disturbances. It would have to be ascertained whether those adolescents who created disturbances in Hobart in 1974 were those who created disturbances in Clarence in 1975, and how much the increased consumption of liquor on the ferries had contributed to this. On the other hand, the police activity, with the very proper purpose of curtailing the disturbances, may have resulted in an increased number of charges in a situation where the total offences by adolescents were little different than before.

Car stealing in Clarence has gone up, though there is obvious frustration experienced in the use of cars. There is little object in having a noisy, highly decorated car which brings its owner to the public notice if there is no public place in which to display it. Stolen cars are fairly easily picked up at the hotels, drive-in, or the limited exit roads. Several cars have been stolen in Hobart to take the driver home and then abandoned in Clarence.

A further disturbing element reported by the staff of most social agencies has been the increased lethargy of their clients. Some teenagers applying for jobs do so with little enthusiasm, perhaps because they feel there is little chance of employment. Some are living at home paying nothing for their board and keep, and spending a large proportion of their unemployment benefits unproductively. Amongst these a truculent and non-caring attitude has been observed, especially in those on probation. A number seem loath to chase the jobs available on the western shore and would rather live on unemployment benefits. They were very ready to use the collapse of the bridge as a reason for their attitude.

No figures are available for adolescent participation in clubs, sports and recreational activities. Nor is it known how far

boredom, lack of and failure to use amenities, the curtailed use of cars, difficulty in finding employment, increased travelling, separation from girl or boy friends and curtailment of sporting activities has had to do with their reactions.

Adults

The greatest complaints by adults have been about transport, time lost, expense, diminished social contacts and the necessity to give up extra part-time work, shift work or overtime. Home activities have been curtailed, less maintenance has been done on houses and gardens and less time spent with the family. Alcohol consumption has increased in many cases, while waiting for a later ferry, during the ferry passage or on arrival before returning home; and increased smoking goes with this. When added to the travelling costs and sometimes reduced possible work, there is a reduction in income available for other purposes.

It is said in Hawkes' survey (1975) that women were taking more tranquillisers, and a number were showing signs of neurotic illness. Many women have had to give up jobs on the western shore and if jobs were retained in spite of the travelling, there were considerable worries about leaving children by themselves.

There has been a reorganisation of the use of the car and driving habits; most have retained a car with all the overhead expenses, but initially at least, with less use.

In some cases people have made readjustments and have found new friends and social interests in their own neighbourhood. Adult educational activities have increased and there has been better patronage of cultural activities.

Numbers of local associations have been started and there has been more local government as well as parliamentary interest. Some would feel optimistic that the bridge accident will have forced many of the adult population in Clarence to reorganise their lives and make the municipality more self-sufficient than before.

The aged

Originally it was felt there might be many problems associated with the aged. There are three old peoples homes in Clarence, though the average age of the total population is younger than in Hobart.

The mobility of the aged is not high and their routine has been little upset. However the problems they particularly faced were the comparative rarity of visits by their children and relatives if they lived 'across the water' and the fears that medical attention would be inadequate, due to the increased calls on doctors' time and the problem of getting to hospital in an emergency. Again a number had been regularly attending hospital or had needed paramedical services, and for some weeks these could not be supplied. As is the case with most new experiences, many of the elderly could not face the ferry journey, nor could they easily be taken for their visits and shopping by their son or daughter; in consequence they limited their activities and remained at home.

Nevertheless, Hawkes' study (1975) showed that elderly women had on the whole adjusted rather better than the rest of the population as they had fewer changes to make.

The family

Most reports have been on the negative side and it is not known how many families have been drawn more closely together by sharing their common problems, making new contacts and spending their weekends at home. The police figures on domestic disputes showed an initial drop below the 1974 figures and no subsequent return to the previous levels.

During the first few months, before the transport services improved, complaints were received by all governmental and voluntary agencies. These particularly concerned the fathers' long hours away, resulting in inability to see the children, tiredness, irritability, discontent over queues and travelling, and lack of sexual interest. Western shore friends were missed, people felt

they had lost the advantages of their choice of home sites and were worried about the likely depreciation in their land and house values.

Many women had to find child care facilities if they were working and were away for longer hours. If they had to give up their jobs some worried over finances and others became bored, dissatisfied and displayed neurotic symptoms.

The ease of contact on the ferries produced a number of domestic complications, reports of infidelity and rumours. Sometimes the lack of sexual interest when the husbands returned after a long day was interpreted by the wives as the result of the husband having found another woman. More of these complaints were heard in the first two months than latterly. This tiredness extended to many of the older group of female workers and one large store reported a number of their women assistants who were approaching retiring age, had left because the travelling and long hours were too much for them.

There is little doubt there have been considerable social changes thrust on the people of the eastern shore which have markedly affected family life. To some extent this has also fallen on the western shore commuters as well. Families with sick, aged or handicapped dependents seem to have had special problems and sometimes have felt anxiety about an inability to visit or to do the things for them that were previously possible. To quote a senior police officer: 'The result upon family life has not been felt with its full weight as yet and I have no doubt that in the foreseeable future many matters of a civil nature that come before the courts will give mention to the loss of the bridge.'

PART FIVE
REORGANISATION AND
ADJUSTMENT: DISCUSSION

Reorganisation and adjustment: discussion

General

The bridge crisis has been described in the light of other reported disasters. It differed from other crises and in fact no comparable study of a city being divided in half has been found.

An opportunity was given to investigate the length of time for changes in the crime pattern to occur in so far as they were shown by the police records. This measurable material is contrasted with the descriptive findings of the various agencies and statutory departments. Some account is given of the effects on individuals, families and the community. One of the aspects of special interest is the time taken for the varying types of adjustments to be made.

Senior members of most government departments concerned with social readjustment met monthly and described the changes as noted by their staff in the preceding month. At the same time a number of chronological events served to delineate other important factors influencing the changes.

Time of adjustment

As might be expected, people tended to show their individual pattern of emergency reactions, according to their personality. Isolation, separation from friends and changes in social life were felt by many. As always happens, a number had their pattern of life so fixed that they failed to accommodate to the new situation. Three particular types were mentioned as occurring fairly frequently.

The first of these were unable to face up to the resulting difficulties and frustrations, they became increasingly lethargic

and resistive to making any adjustment. Such people made very little effort to obtain employment, blamed the bridge for their failures and at worst went off to live on their pensions in communal living settings, or in a squalid existence between the hotels and an unsatisfactory domestic situation. They were independently mentioned by no less than four different agencies.

The second group comprised those with a marked phobic condition, with fears of water, ships and crowds and feeling the bridge would never be safe again; these were not so rare as might be supposed.

The third group was noted by both Hawkes (1975) and by the psychiatric services. These were the lonely neurotics who tended to go off by themselves to Hobart to relieve their depression and seek some comfort by their proximity to people and who now felt themselves still further isolated.

An added finding of interest was that in the difficult period of adjustment from February to March 1975, the numbers of deserted wives and single mothers applying to the Social Welfare Department for relief doubled from 23 to 46. It seems possible that the extra responsibilities and the inability to obtain casual low-level work may have resulted in a number of men leaving their wives to go off elsewhere at least temporarily.

Isolation, stress, fatigue and tiredness were frequently mentioned in Hawkes' survey (1975) and seem to have created the greatest obstacle to satisfactory adjustment. Moreover, the enforced changes in shopping habits were a considerable worry to the women.

It is not known how the many persons with chronic anxiety have, as yet, had their family lives disrupted to an irreparable degree or what effect this will have on growing children. In fact the feeling of being unable to escape from a restricted existence ordered by timetables and changes of habits has given rise to an increased dependency on the advice of the social services. Almost every government department has recorded many enquiries and

requests which have little to do with their usual functions, but which reflect the need of the enquirers for support, whether for themselves or for assistance with their family problems.

The psychiatric clinic has had fewer early breakdowns referred than were expected; it is supposed that a number of more severe cases will appear later. The increase in the supply of tranquillisers by general practitioners to women has already been noted. Reports from the clinic social workers reflect the insecurity of the community; this was especially noticeable in the first three months after the accident. There is, as Killian (1954) noted, the need for further study of the post-emergency period and of both individual and group recovery and adjustment.

When the Research Committee met at the beginning of June 1975, it was generally agreed that a level of adjustment had been reached in April and May, and there was a note in the minutes which read: 'The meeting felt that an unsettled adjustment had been made and that a temporary plateau had been reached, but it was likely that some disequilibrium and unrest was still likely to occur'.

In July 1975 the Social Welfare Department wrote: 'One has the impression that the community has adjusted to the disaster remarkably well to this point of time, however there is the impression that underlying problems still remain'.

The findings from the police Crime and Occurrence Book showing the initial drop in domestic disputes, and the simultaneous rise in neighbourhood and noise complaints, were of great interest. This is especially the case since the high level of neighbourhood disputes has persisted throughout the months of study: though by the end of June 1975 the records were beginning to approximate those of 1974. It seems that the tendency was for families to share their own troubles but to project their discontent onto others, and that it has taken six months for the previous pattern to return.

A further finding is that since the bridge collapse, the

proportion of charges in the Bellerive police district has considerably increased over the other police areas. It might be supposed that the blame projected onto others extended to reporting crimes and giving greater assistance in their detection; at the same time the police strength and autonomy was increased, therefore the two factors are not easily separable.

This three to four month period of adjustment was confirmed from several different angles such as the resumption of Friday evening shopping, the peak of enquiries to the Citizens' Advice Bureau, and the fall of Housing Department Welfare Officer contacts. The plateau in alcohol consumption on ferries at about the same time might depend upon the numbers who had settled to this form of transport and the amount of alcohol that could be comfortably consumed on the journey. About midway through the period of enquiry there was a change in the number of people with housing rent arrears (see Table 24).

This might suggest an accumulation of debts which could no longer be met by the lower socio-economic group who may have been deprived of part-time employment.

There were various expressions of dissatisfaction: a public meeting in January 1975, various committees, newspaper letters and public complaints. During March and the first two weeks in April few changes had occurred towards improving transport, health or social services. This comparative inactivity culminated in a lively public meeting held on a football ground on 20 April 1975 which was attended by an estimated 5,000 people who called upon the Ministers for Transport and Health to resign. This demand was in close agreement with the findings of the Citizens' Advice Bureau, which suggested that in the first three months transport and health were the subjects of greatest concern to the community, but these then changed to other needs for support and social contacts.

However within a fortnight the first ferry timetable had been published, the Hobart ferry terminal (with seating, lighting and heating) was opened and the widened riverside road made

available to two-way traffic. These produced the necessary relief at the critical moment.

In fact, all the typical reaction patterns described by Janis (1954) were observed to account for the behaviour in adjustment. She mentioned as the emotional responses to danger:

- (i) apprehensive avoidance — which may be prolonged as anxiety for a long period after the crisis;
- (ii) stunned immobility — this tends to be short-lived with a relative absence of motor and mental activity;
- (iii) apathy and depression;
- (iv) docile dependency;
- (v) aggressive irritability.

She made a point of the loss of mental efficiency which follows.

Similar findings were described by Wallace (1957) who described a disaster syndrome of shock, then compensatory euphoria followed by irritability.

Crime and offences

The crime and offence figures are difficult to interpret for a number of reasons.

The charges are but a portion of the reported crime, first because only a percentage are solved and secondly the charges are only those recorded in the charge room and not those on summons.

The percentage of offences for which charges are laid tends to be higher in the alcohol offences because these are police generated offences — that is the person is mostly apprehended or identified at the time of the crime.

Charges tend to be a reflection of police efficiency. With greater numbers of police on the streets, a new task force, and an increased strength, the charge rates have risen.

Nevertheless there are some observations of importance which have emerged from the findings.

Crimes against the person are known to be associated with alcohol. Table 7 shows they increased by 20 per cent in Hobart in the first six months of 1975 compared to 1974, but so did the consumption of alcohol by 5 per cent. Crimes committed against the person did not increase in Glenorchy. Possibly part of the increase of these offences in Hobart was due to Glenorchy residents drinking there, while the rise of 65 per cent in crimes against the person in Bellerive could well be explained by the greater rise in alcohol consumption there and the youths being cut off from the usual night life in Hobart.

It seems possible that when the Bellerive criminals moved out of Hobart after the accident, the corresponding Glenorchy law-breakers moved in and took their place. If this were correct it might account for the increase in offences against the person in Hobart, the fall of crime in Glenorchy and the increased numbers of people apprehended for drink-driving in Glenorchy on their return.

Table 12 is illuminating in showing the offences against good order have a similar relationship to the charges in general. Table 13 would also suggest some movement of the offenders from Glenorchy to Hobart. For when the alcohol offences had increased it would be inconceivable that the good order offences there had coincidentally dropped to less than half the previous figures. The relationship between alcohol offences and good order offences is more in keeping in Hobart and Bellerive.

In short it seems:

- (i) that the property offences in Bellerive dropped appreciably in the first quarter after the bridge accident

suggesting a difficulty in adjustment and a lull in the situation comparable to that shown by the public generally in other fields of adaptation;

- (ii) the expected offences against the person and increased alcohol consumption go hand in hand. On the eastern shore there was an increase in alcohol consumption by 15 per cent as against 5 per cent on the western shore;
- (iii) there is evidence to suggest that when the Bellerive offenders moved out of Hobart after the collapse of the bridge, the Glenorchy offenders moved in;
- (iv) it has been reported that a number of persons with criminal tendencies from Bellerive may have moved to Hobart to live;
- (v) that since the collapse of the bridge many more arrests have been made in Bellerive. This finding cannot be divorced from the augmented police force. Many of the charges were associated with alcohol; thus they give no real indication of increased crime, but rather of increased drinking as the result of an unsatisfactory adjustment after the bridge accident;
- (vi) shoplifting is said to have increased on the eastern shore and there is some evidence it has lessened on the western. However, only one western store has reliable records for the place of residence of shoplifters;
- (vii) the road conduct shows the various related items to be in keeping with the traffic flow. The enquiries confirmed the ways in which the vehicles were used, the frustrations associated with the restrictions imposed and the uncertainties of driving along poor, narrow, unlit, and overcrowded roads. These are an even greater hazard when the drivers have been drinking;
- (viii) motor car stealing has increased since the opening of the riverside road.

Two interesting figures in regard to crimes against property

show in Tables 8 and 9. Because of the sudden unexplained rise of 25 per cent in Glenorchy in May and June 1974, the figures suggest a drop in 1975. The other point of interest is the drop in property offences in the first quarter of 1975 in Bellerive. This may well be a significant finding associated with the bridge and the difficulties in adjustment and the people being more house-bound. In the first fortnight the lull in criminal activity was especially noticeable and one police officer suggested that the usual offenders were 'stunned' by the occurrence.

CONCLUSIONS

Conclusions

Although it is easy to be wise in retrospect our results show that by a study of the literature on disasters and crises, the reactions of groups under stress can be predicted, and by the application of psychological and sociological principles certain guidelines can be drawn. These could be applied to most emergencies of some magnitude.

- Freedom of speech must be encouraged, meetings held, committees formed and means discovered to allow as many people as possible to participate in community projects. Letter writing to the authorities, competitions, suggestions, information bureaux and enquiry offices would all be valuable. Those in authority should not only expect criticism but invite it if people are to 'work through' their problems and to find a scapegoat or two on the way. Considerable cooperation with the media would aid governments and their officers as well as the community.
- Freedom of action should be allowed and room for initiative given. Temporary changes in function in statutory bodies would give the chance to supply support and advice in fields for which they were not originally intended. In this instance the newly established government offices in Clarence have allowed a considerable amount of freedom to those in charge without too much supervision from their central bodies. The more autonomy is extended, the more the likelihood that initiative will be demonstrated.
- It is important that local authorities should be encouraged to make decisions and have more freedom and control of their own areas in emergencies. This may require extra funding. This was also noted by Hawkes (1975).

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- Much thought should be given to the motivation of the community. This necessitates the steps of communication, the setting of attainable targets and the granting of rewards. It is essential that whatever the target envisaged it should never be too remote, or fail to be achieved, and that there should be public participation in its attainment. Insecurity and uncertainty always occur under emergency circumstances, but achievement has a settling influence and is accompanied by stability. This is a reason for having official openings, for naming a new ferry, medical centre, highway or hall after a local place, individual or body so that it *belongs* to the community concerned and people can identify with it.
- Communication is essential and should be established as soon as possible; not only should physical but also verbal contacts be facilitated on both official and personal levels. The media can do very much by means of planned programs. The literature on disasters shows the need for this communication to give mutual support.
- Medical services must be easily available at all times to avoid the insecurity which is often experienced in the form of fearing or anticipating the occurrence of a medical emergency. For much the same reasons people turn to the police services for protection, stability and the maintenance of order.
- It is the police services we have studied most within this context. There is no doubt about the success of the crisis organisation and especially the accomplishments of the expanded eastern shore services which in part have corresponded with the considerable autonomy they were granted.

One of the senior officers in the Police Headquarters wrote in his report to the Research Committee:

So far as our police force is concerned, even with the final restoration of the Tasman Bridge, independence will have become

implanted in the men of the eastern shore to the extent that in many ways they will be more self-supporting than was visualised before the disaster.

The bridge crisis is remarkable for the degree of lasting disturbance as the result of a single incident. A very simple example of the disruption caused is that of two young married clerks in a city office, both on the same salary, both with wives doing part-time work, and both living about 15 minutes journey from their work, one on the east side and one on the west. Following the bridge collapse one had to travel for three hours a day instead of half an hour, it cost him an extra \$1 a day for fares, his wife was unable to work and there was little chance of his circumstances improving for perhaps four years. There were additional severe social handicaps to face and separation from relatives and friends, while marital problems might easily follow. For the other nothing changed. These and many more examples reflect the frustration of a whole community.

It might have been better had they been able to do anything to solve their problems themselves, but in this case they were powerless and entirely in the hands of the government services. Adjustment had therefore to be made by evolving new patterns of life with lowered socio-economic standards.

Rationalisation has been used on the basis of the inconveniences paying for the advantages of living on the eastern shore. Others are able to derive sufficient enjoyment from their newer and freer means of travel to convince themselves the crisis was of advantage to them, but these are few in number.

In fact the accident has given an opportunity for reorganisation of social, municipal and industrial independence which would otherwise have been unlikely, at least for many years. Paradoxically the early expectation of the re-establishment of full communications may be the greatest obstacle to community development on the eastern shore.

Generally there is an uneasy tolerance to chronic frustration.

Some have failed to adjust, many more have been restricted and handicapped. There is little doubt that longer term problems are likely to arise; therefore an interim assessment of the present position should be of importance to future studies, as well as showing the reactions of a whole community to a sudden and lasting isolation.

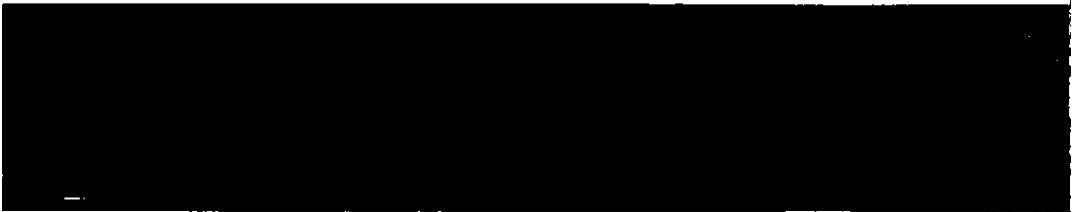
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